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THE EDGE OF THE POND  
BY J H FIELD  
Prize, Landscape Class

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v. 12

# PHOTO ERA

1/35  
135

The American Journal of Photography

VOLUME XII

JANUARY, 1904

NUMBER I

## The New Year

The moving finger writes; and, having writ,

Mobes on: nor all thy piety nor wit

Shall lure it back to cancel half a line,

Nor all thy tears wash out a word of it.

—Omar Khayyam

## Our Second Annual Photographic Contest

THOS. HARRISON CUMMINGS

IS Photography a Fine Art?" was the subject of an address given by Elbert Hubbard before the national convention of the Photographers' Association of America, held in 1902, at Buffalo, N. Y. In the course of an hour's talk, during which time he never once alluded to his subject, he both shocked and amused his audience by declaring that art, in his opinion, was "largely a matter of hair-cut and necktie." Inasmuch as Fra Elbertus needed a hair-cut badly and wore a flowing necktie, his audience quickly saw his point and laughed with him heartily. The editor of the *Philistine* is probably among the ranks of those who regard art and photography as contradictions in terms. "Art," they say, "is a fine, high, human expression—it is emotion, and the service of it requires a special intelligence. Photography, on the other hand, is mechanical. The camera sees nothing, but blindly copies what is before it, and the result is but a soulless statement." We will admit frankly that if this were true, it were folly to maintain that photography is a fine art. No one will deny, however, that there are qualifications to be reckoned with in the matter which will modify this view very materially. For instance, in pure art, there is always the personal

element which counts for much, as art is only "nature seen through a temperament." The choice of subject for a picture is the first step, and when a photographer selects a theme that is agreeable or æsthetically correct, the spirit of art is stirring within him. Then if one is skilled in pose, grouping, lighting, and composition, we can hope in some measure for artistic results. Every picture has or should have a central point of interest to which all other parts should be subordinated, even to omitting unimportant details; then by breadth of arrangement in light and shade, skilfully using the soundness and repose that come from the subtle repetition of line, one may arrive ultimately at pictorial effects and artistic results.

These ideas have been suggested by an examination of the prints received in the second annual photographic contest of the PHOTO ERA. Out of the large number of entries received, upwards of five hundred can be classed as good, three hundred as excellent, and nearly two hundred as of a high order of merit. Among these latter are some prints that would take high rank and would adorn the walls of the leading photographic salons of the world. They are mostly the product of comparatively unknown workers,

as will be seen from the list of awards published below, and are largely dependent for their artistic value on their simplicity of treatment. Everyone knows that the effect of putting a broadly painted picture beside a photograph is to kill the latter, because it makes the monochrome look finical and cheap. But let us take any of these prize pictures, especially the awards in the landscape, genre, and marine classes, all broad effects in nature, and we have photographic prints that will hold their own with the painted work anywhere.

The following awards have been made :

#### LANDSCAPE CLASS

PRIZE.—“The Edge of the Pond,” J. H. Field, Berlin, Wis.  
 MENTION.—“Early Morning,” Geo. H. Seeley, Stockbridge, Mass.; “A Wet Day,” Thos. A. Morgan, Denver, Col.; “Midwinter,” Thos. A. Morgan, Denver, Col.; “The Brook in Winter,” A. G. Smith, Brockton, Mass.; “The Bend of the River,” C. F. Clarke, Springfield.

#### GENRE CLASS

PRIZE.—“Homeward,” Geo. F. Seeley, Stockbridge, Mass.  
 MENTION.—“Come along, Girls!” Dr. F. Dettlesen, Chicago, Ill.; “Do you want a Bite?” Mrs. Nancy F. Cones, Covington, Ky.

#### FLORAL CLASS

PRIZE.—“Cherries,” Norman Farquhar, Brookline, Mass.  
 MENTION.—“Orange Blossoms,” H. G. Dorsey, Rochester, N. Y.

#### PORTRAIT CLASS

PRIZE.—“Head Study,” Mrs. Helen W. Cooke, Providence, R. I.  
 MENTION.—“My Doggie,” Henry A. Sheldon, Utica, N. Y.

#### MARINE CLASS

PRIZE.—“Noontide,” T. Edward Schiedt, Philadelphia, Penn.  
 MENTION.—“Coming up the Harbor,” H. W. Kimball, Haverhill, Mass.

#### INTERIOR CLASS

MENTION.—“Interior,” Cora Stanwood Cobb, Newton Upper Falls, Mass.

#### SPORTS CLASS

MENTION.—“A Nine-foot Vault,” Pearl S. Waters, Cincinnati, O.

The grand prize was awarded to Geo. H. Seeley for a collection of twenty-one pictures, of which two received awards. All showed great breadth of treatment, and with a little more familiarity with his medium, Mr. Seeley will do great things in photography. We expect to publish more of his work in later numbers.

The work in the landscape class averaged

better and was greater in quantity than in any other class submitted. More than twenty pictures were of so nearly equal merit that the judges had great difficulty in deciding which should have the awards. But for the strict necessity of limiting the number, the number of mentions would have been at least twelve.

The prize picture in this class was taken at 7.30 P. M. with full opening of a 5 x 7 R. R. lens, with one-half second exposure. The Cramer Iso plate was developed with pyro and soda, and printed on Willis & Clements' Sepia Platinum paper. For breadth of treatment, subtlety of feeling, and simplicity and repetition of line, the judges unanimously gave this the award.

“Early Morning” by Geo. H. Seeley is reduced from a 7 x 13 print on Eastman Sepia paper. It was taken with a Zeiss lens at F 11, with two seconds exposure in good light at 5 A. M. The Cramer plate was developed with hydroquinone. The grouping and composition in this picture is most painter-like, but there is a little uncertainty in the treatment, evidenced by the heavy shadow at the left, which is, however, exaggerated in the reproduction.

“A Wet Day” was taken in a snowstorm on a Kodak film with one-fiftieth second exposure at 2 P. M. The lens was Collinear III, working at F 6. 8. The developer was ortol, and the print was made on American Platinum paper from an enlarged negative. The picture successfully portrays a much-neglected aspect of modern life, a city street, and the idea of motion is well carried out.

“Midwinter” by the same competitor is a picture far removed in subject and feeling from the last, but equally successful in treatment, and also technically admirable. Taken with a Turner-Reich lens at 10 A. M. on a bright day, with stop F 30 and one thirty-fifth second exposure, the Seed 26x plate was developed with ortol and printed on American Platinum paper.

“The Brook in Winter” by A. G. Smith is one of the most delicate and truthful snow pictures that has ever come to our notice. Unfortunately for our readers, its very delicacy renders it impossible for us to reproduce it in the ordinary way, but it is presented to the purchasers of the edition de luxe as a platinum

print on Willis & Clements' paper from the original negative. It was taken with a R. R. lens, stop 8, at 10 A. M. in a bright light. The exposure was one twenty-fifth second on an American plate, developed with pyro and printed on platinum.

"The Bend of the River" was taken with a Century lens, full opening, exposure two seconds at 2 P. M. in dull light on a Seed orthochromatic plate with color screen. The developer was ortol, and the print was made on Angelo platinum paper.

Mr. Clarke's picture, "The Head of the Lake," is included as a supplement in the January edition de luxe in the form of a print from the original negative on Eastman Sepia paper. This print shows admirably the artistic qualities of the paper, which are further emphasized by the fact that a very large proportion of all the pictures entered in this contest were on this paper.

The prize in the genre class was awarded to an 11 x 13 print on Eastman Sepia paper, "Homeward," by Geo. H. Seeley. The exposure at sunset with a Zeiss lens, stop F 11, was twelve seconds on a Cramer plate, which was developed with hydrochinon. This picture leaves little to be desired for simplicity, strength, or treatment, and the choice of subject worthily carries out one of the best traditions of art, even if it does not depart from the beaten paths.

Dr. Detlefsen's picture, also on Eastman Sepia, is, however, distinctly on original lines, and shows most happy handling of difficult lines. The picture has a most alluring feeling of progression, and the attention is fixed, carried, and held at the artist's will, with no possibility of escape. The lens was a Manhattan R. R., working at full opening, exposure one second at 3 P. M. on a bright day. The Seed 26x plate was developed with glycin.

Mrs. Cones' picture, reproduced from a Willis & Clements platinum print, shows again marked simplicity, and fixes the attention on the main point of interest with no multiplicity of distracting details. The pose is excellent, and the handling admirable. The picture was taken on a Cramer plate with a R. R. lens working at U. S. 32, with one second exposure at 3 P. M. on a bright day, and developed with M. Q.

"Noontide" is another example of simplicity of composition. The reproduction cannot satisfactorily render the green carbon original, which has wonderful depth and transparency. The picture was taken with a Voigt Euryscope IV on a pyro-developed Stanley plate. The exposure at F 32 was one-tenth second at 11 A. M. in strong light.

Mr. Kimball's marine is reproduced from an enlargement on Eastman's platino-bromide from a pyro-developed Hammer plate. The lens, a Rochester Symmetrical, called for an exposure of one fiftieth second at U. S. 32 at 3.30 P. M. in a poor light.

"Cherries" is a beautiful picture of an extremely difficult subject, and the original reproduces the roundness and solidity of the fruit in a manner to which unfortunately no reproduction can do full justice to. No details are given, save that the lens was a Goerz. Mr. Dorsey's "Orange Blossoms," a very attractive little picture, was taken with a Gray Day lens on a Cramer Iso plate, and printed on Velox.

The work submitted in the portrait class, although large in quantity, was discouragingly low in quality, and by no means a fair representation of what our readers have done and can do in this line. The prize picture shows audacious handling of the lights, a handling which is not entirely successful, but the picture has undoubted charm in spite of that fact, and will repay study. The print, which was on Eastman Sepia, is inadequately represented by the halftone. A Century Planatic lens at full opening was used and the exposure was four seconds at 9 A. M. in a dull light. The Seed 27 plate was developed with edinol.

Mr. Sheldon's portrait was taken with a Rectigraphic lens, stop F 32, exposure three seconds with a south light at noon. The developer was eiko-hydro on a Stanley plate, and the paper was Willis & Clements.

In the remaining two classes the amount of work submitted was very small, and the judges decided that no picture was worthy of a prize. Miss Cobb's interior was taken with a R. R. lens at noon on a bright day and given twelve seconds exposure using stop 16. The Seed 26x plate was developed with pyro and printed

on Cyko. "A Nine-foot Vault" was taken with a Goerz lens at full opening, exposure one-hundredth second in shadow at 1 P. M. The Cramer Crown plate was developed with M. Q., and printed on Special Rough Velox.

On the whole, there are several lessons to be learned from this contest, some of which were outlined editorially in our December issue. First of all, it is very apparent, even to the most casual observer, that the quality of work submitted this year is uniformly higher than it was last year. Distinct advances have been made along the lines of breadth of treatment and originality. The faculty that transmutes forms and colors in pictures, changes their places and selects, is largely in evidence in these photographs. The landscape painter, for instance, does not copy everything he sees. He successfully selects what to paint and what to leave out. For strong contrasts he darkens and lightens his lights and shadows. He brings forward and throws back. In a word, he gives us nature, and true art is near to nature's heart. These photographs give evidence that this same feeling for selection exists with the photogra-

pher as with the landscape painter. It is one of the most encouraging signs, we hold, evinced by this contest, and proves that photography is sometimes rightly termed an art-method.

There are other lessons to be learned, such as the necessity of mounting prints properly to bring out their qualities to best advantage. One of the greatest difficulties in the way of the amateur photographer to-day seems to be the proper selection of a mount. Brilliant colors almost invariably kill the picture, and a proper setting is very necessary to complete the work of the picture. Another common fault seems to be the use of lenses of too short focus. Twelve inches is short enough focal length for any lens, except for architectural work, where the exigencies of space necessitate the use of a lens of wider angle. Besides, the long-focus lens always helps toward simplicity of composition—at least by exclusion if in no other way. On the whole, we are proud, and justly so, of this contest, and we believe that in the years to come these pictures will be regarded as fairly representative of the photographic work of America in 1903.

## On Titling Pictures

E. C. S.

FOR exhibition purposes, albums, and wherever photographs are to be viewed by a number of persons, each picture ought to be accompanied by an appropriate title; that is, a title which is descriptive, suggestive, or designative. Too often pictures are called studies. It is a study in clouds, a study in waves, a study in genre, a study in posing, a study in what not, the only significance of the word "study" apparently being that it requires considerable study to decide just what idea the photograph is meant to convey. If the photographer has a definite idea the photograph should portray that idea, and the title should plainly designate it. The difficulty of finding a title for some

photographs is evidence that the photographer has simply made a representation of something he considers pretty instead of attempting to portray some definite idea.

If a photograph be composed of a mass of clouds it is no very startling intelligence to inform the observer that such is a cloud picture; that is quite evident, but what the title should express is some attribute of the clouds, or some special arrangement or condition of the clouds which conveys a definite idea, otherwise the clouds are merely clouds and not a picture. This matter of titles, in connection with the pictorial values of photographs, deserves a great deal more attention than it generally receives.



DO YOU WANT A BITE?  
BY NANCY FORD CONES  
Honorable Mention, Genre Class





ORANGE BLOSSOMS  
BY H G DORSEY  
Honorable Mention, Floral Class



NOONTIDE  
BY T EDWARD SCHIEDT  
Prize, Marine Class

PHOTO  
ERA



HOMEWARD  
BY GEORGE H SEELEY  
Prize, Genre Class

# Mounting in the American Style

C. PUYO

THE American process of mounting by a combination of superposed papers has many advantages. As it eliminates the framer, or at least singularly reduces his role, it allows the artist to give to the margin exactly the proportions and the tones desired by him. It is very economical and also very flexible, for the shades of the papers of commerce are of an infinite variety.

Let us study the different problems which appear when one desires to make a mount of this kind,—general color of the margin; general tone of the margin; width of the margin; rhythm to adopt in the succession of tones; rhythm to adopt for the respective widths of the secondary margins formed by the successive diminutions of the paper.

*General Color of the Margin.*—This is a question of shades. One generally has to choose between the following gamuts: Pure gamuts, including those of blue, green, yellow, and red; composite gamuts, including that of the grays and that of the browns. By placing the print on various papers, one after the other, one can easily decide which scale to adopt. After this it is necessary to select the three or four shades of the gamut which will best suit the print. This is a long operation, full of doubts. In general, it may be said:

That red prints accept the gamuts of yellow, green, or blue-gray, in the order given; that is, should be framed with harmonizing or contrasting colors.

That the browns are best framed by harmonious colors, using the scales of yellow, red, brown, or gray, and that they are injured by greens and blues.

That the blues accept only harmonious scales, those of blue and gray.

That the blacks, when they are pure, go well with anything; but if they are cold or warm, they must be treated as blues or browns respectively.

In these operations one is constrained to vary the colors of the mounts for every print, and consequently no precise law can be stated.

*General Tone of the Margin.*—It is necessary to choose between a dark and a light tone. For some time the dark margin has been systematically preferred, but this fashion seems about to disappear; it was undoubtedly the result of a marked and justifiable reaction against the white mount. It seems rational to reserve this kind of mounting for gray and sombre effects, as a deeper toned edge brings out the delicacy of the grays. Every vigorous print, however, with deep blacks, will gain by standing out from a light background.

*Size of the Margin.*—Little can be said; we merely call attention to the well-known rule which states that the margin should be larger in proportion as the size of the print is reduced.

*Succession of Tones.*—Two papers are all that are absolutely necessary to make a frame, but three are generally employed, and even four may be used. The tones should not succeed each other in the order of strength. Thus, designating the tones by the figures 1, 2, 3, 4,—1 representing the lightest tone and 4 the darkest,—the succession starting from the print should not be 1, 2, 3, 4, or 4, 3, 2, 1, but perhaps 4, 2, 3, 1, or 1, 2, 4, 3. In the triple mount, in the same way, one finds the combinations 1, 3, 2, or 2, 1, 3, or 3, 1, 2, or 2, 3, 1, to the exclusion of 1, 2, 3, or 3, 2, 1. One will place next to the print the lightest tone if one wishes to emphasize the blacks especially, or a dark tone if it is desired to bring out the whites. To emphasize the sky when it is the principal part of the picture, one will put first a tone intermediate between the two extreme tones in the sky.

*Succession of the Parts of the Margin.*—In the multiple mount one distinguishes, first, the extreme edge, which, on principle, will be the largest; then, between this and the print, either a narrow edge and a wide one, or a line edge and two wide ones of different widths, or two narrow ones and a wide one between.

In the classic framing the lower margin must always be wider than the upper; if the picture

is vertical, the two sides edges will be as wide as the top margin; if it is horizontal, the sides will be as wide as the bottom. All exceptions to this rule must have a reason. In pictures with a large amount of foreground, the width of the lower edge may be exaggerated in order to increase the importance of the first plane; but such a disposition would be evidently absurd in a picture with abnormally low horizon. Reasons of the same nature may sometimes justify a lateral displacement, but I must confess that the examples I have seen would have lost nothing by being enclosed in the classic manner.

All these mountings will be happily finished by a very narrow wooden frame, whose tone must verge, but without excess, on the general tone of the mount. Thus, a white frame may be put on light mounts; prints on medium tones can be framed in natural or slightly stained wood; and dark mounts require a dark or black frame.

To this slight dissertation I will add one conclusion: That our own interest counsels us to use very simple frames, and, as far as possible, light schemes of mounting. In saying this I am pleading for the good appearance of the walls of our exhibitions, and for the gayety of their appearance. By reason of the continuity of the photographic image, the paper is covered everywhere and pure whites are rare; hence, the whole appears stern and severe. Let us put in our mounts a little of the clarity which is lacking in our pictures, especially when they are crowded too closely on the walls.

[This translation of a portion of an article in "La Revue de Photographie," the new organ of the "Photo Club de Paris," authoritatively sets forth French ideas of mounting prints, and is logically and lucidly written. While rather formal and mathematical in its method of arranging the pieces of the mount, there is much sound truth in the principles advanced. We hope, in a forthcoming number, to present some examples of M. Puyo's work, as he shares with Robert Demachy the first honors in French photography. — EDITOR.]

## Notes on Sulphuretting a Silver Image

R. E. BLAKE SMITH

WITHIN the last eighteen months I have published several articles on an indirect method of converting a silver image into one of silver sulphide, the object of this proceeding being to obtain brown tones on bromide or similar papers, and on lantern plates. This consists of first converting the silver image into one consisting of a halogen compound of silver, or else of silver ferrocyanide, and then sulphuretting these compounds.

Now, there are three conditions with which this or any other process should comply:

(1.) It must yield a good and permanent result.

(2.) It must be easy to carry out.

(3.) It must be capable, if it is going to be of general use, of being performed in an ordinary house or photographic laboratory, without damaging any of the surrounding objects, or

causing annoyance to the operator or his neighbors.

None of the methods of indirect sulphuretting yet published, either by myself or by others, have wholly satisfied these three conditions. However, I have lately been able to clear up all difficulties, and to devise a method which is satisfactory in all these ways.

### FIRST AS TO BLEACHING THE IMAGE

I have come back to the view that iodine dissolved in potassium iodide solution is on the whole better than the bleaching powder method I formerly recommended. The chlorine evolved from the bleaching powder solution has so great an irritating effect on the operator's mucous membrane that it seriously interferes with his personal comfort. This is especially noticeable in the case of big enlargements on bromide paper,

when a large surface of the chlorine evolving liquid is exposed. If the bleaching powder solution be used in dishes exposing a surface of more than about forty square inches, it should be used out of doors. However, I would advise nobody to use it at all for this purpose. If it is used, the print must be well washed afterwards in running water before sulphuretting. The only bleaching solution which I recommend is :

Iodine	.	.	.	.	.	45 grains
Potassium iodide	.	.	.	.	.	110 grains
Water	.	.	.	.	to	10 ounces

When the action of this solution is complete, the image appears yellowish-white on a deep blue ground. The blue color is due to an addition compound formed by the iodine with the starchy constituents of the paper. It is rather difficult to tell at this stage when the bleaching of the image is complete, but one soon gets into the way of judging the right time allowance. It is convenient to lift the prints in and out of the iodine solution by means of clips, which, of course, must not be made of metal. Any iodine stains on one's hands can be removed by the application of a solution of sodium sulphite, or of hypo, but the last traces are rather difficult to get rid of, and this is the reason why I recommend clips to be used.

#### THE NEXT OPERATION

is to transfer the prints straight from the iodine bath into a five per cent solution of sodium sulphite ( $\text{Na}_2\text{SO}_3 \cdot 7\text{H}_2\text{O}$ ). They are left in this bath till the blue color has been entirely destroyed. If it be now found that the bleaching has not been complete the print is thoroughly rinsed, and then put back into the iodine solution and left for a little time longer. It is then again treated with the sulphite bath. From the sulphite bath, which must not be allowed to get acid, the prints are immersed straight, without any washing, into the sulphuretting solution.

In a former letter I gave certain reasons in favor of using a solution of sulphuretted hydrogen ( $\text{H}_2\text{S}$ ) in place of the solution of sodium sulphide ( $\text{Na}_2\text{S} \cdot 9\text{H}_2\text{O}$ ), which I had originally recommended. My recent experiments have shown that all the objections to sodium sulphide can be got over entirely.

This substance consists of large transparent deliquescent crystals, which are generally rather brownish in color. It is labelled and sold under the name "Sodium sulphide ( $\text{Na}_2\text{S} \cdot 9\text{H}_2\text{O}$ ). Pure crystalline reagent for analysis."

While I certainly think this is a most excellent substance for sulphuretting purposes, I must at the same time protest against it being labelled "pure." It is nothing of the sort, but contains iron, whence the brownish color of the crystals. When these crystals are dissolved in water the iron goes into solution, too. Until quite recently I had no idea that such a state of things was possible. I thought any iron present would, on solution, be immediately precipitated as ferrous sulphide. In the crystals the iron very likely exists as a double sulphide of sodium and iron in the ferric state. On solution, this double sulphide is probably first converted into a double ferrous sulphide, and then very slowly ferrous sulphide itself is precipitated.

Having ascertained the causes of my previous want of complete success with sodium sulphide, I at once saw a way out of them, by means of which sodium sulphide, with its great advantage of practical odorlessness, could be employed.

#### THE FOLLOWING IS THE METHOD I ADVISE

of making up the sulphuretting solution. Weigh out one and one half ounces of sodium sulphide crystals. Dissolve these in about ten ounces of water and heat to boiling, stirring the solution gently with a glass rod. A glass beaker or a porcelain evaporating basin is a suitable vessel in which to heat the solution. Keep the solution just boiling for about five minutes, and then filter it. All the iron will be found to have been precipitated and left on the filter paper as black ferrous sulphide, and the solution will now be almost colorless. The solution is allowed to cool, made up to twelve and a half ounces with water, bottled, and labelled "Twelve per cent sodium sulphide solution."

The sulphuretting bath is made by taking one ounce of the stock sodium sulphide solution and adding twenty ounces of water. Only a very short time is needed for complete sulphuration, but care must be taken to allow sufficient. I

think it necessary to leave the print in the sulphuretting bath for at least a minute after all change in color has apparently ceased.

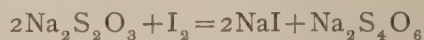
After the sodium sulphide bath the print is washed for about two hours in running water, and is then finished.

#### AS TO THE PERMANENCY OF THE RESULT

I believe that a print treated in the way I have described is possessed of better lasting qualities than one having a plainly developed silver image upon it. Silver sulphide ( $\text{Ag}_2\text{S}$ ) is an exceedingly stable compound, and an image consisting of it must be regarded as an absolutely permanent one. An image consisting of pure silver also possesses excellent keeping properties, but we all know that silver tarnishes in the presence of sulphides, and, of course, silver sulphide, to the formation of which the tarnishing is due, does not. We all know that our silver plate becomes tarnished by prolonged exposure to the traces of sulphuretted hydrogen in the air, and the silver image of a print must, to some extent, share the same fate. Another cause of slow deterioration of silver prints, due to the action of hydrogen sulphide, is the decomposition of the emulsion vehicle, when that vehicle, as is the case with gelatin or albumen, contains sulphur. However, these are very slowly acting causes of fading; as is also the gradual failing of the actual paper on which the emulsion is spread, to which, of course, all kinds of prints are liable.

Practically speaking, by the fading of prints, we mean the quick fading only, *i. e.*, the fading at the end of three years or so. This quick fading of silver prints, when it occurs, depends on the presence of chemical impurities, generally traces of hypo not completely eliminated after fixing.

Now, in comparing the lasting qualities of the toned silver print and the original silver print, we have chiefly to consider which method gives us the best chance of obtaining a print free from traces of hypo or other unstable sulphur compounds. It is well known that in all prints that have been fixed with hypo there always lurks, even after prolonged washing, exceedingly small traces of the reagent in the fabric of the paper. When iodine comes in contact with a thiosulphate, the well-known action represented by



in the case of the sodium salt occurs. An iodide and a tetrathionate are formed.

Although the thiosulphate is got rid of by the iodine, I believe the tetrathionate which is formed is equally objectionable, and so at first sight it does not appear that we are any better off. Still, the probability is that we are, to some extent, for the chemical change will cause a certain amount of place disturbance, and so will help the subsequent washing to carry out its function. It must also be noticed that in actual practice one is certain to wash a toned print for a longer time in all than a plainly developed one. Any trace of a sulphur-containing compound introduced during fixing, and not subsequently entirely removed, will affect, in so far as it may cause sulphuration of the image, a plain silver image, but not one of silver sulphide; but in so far as it may lead to the eventual formation of sulphuric acid, it will probably equally affect all kinds of prints.

It appears, therefore, that everywhere the toned print holds a slight advantage in lasting properties over the untuned one.

—*Photography.*



STUDY OF A HEAD  
HELEN W COOKE  
Prize, Portrait Class



MIDWINTER  
BY THOMAS A MORGAN  
Honorable Mention, Landscape Class



COMING UP THE HARBOR  
BY H W KIMBALL  
Honorable Mention, Marine Class





INTERIOR  
BY CORA STANWOOD COBB  
Honorable Mention, Interior Class



EARLY MORNING  
BY GEORGE H SEELEY  
Honorable Mention, Landscape Class





CHERRIES  
BY NORMAN FARQUHAR  
Prize, Floral Class



MY DOGGIE  
BY HENRY A SHELDON  
Honorable Mention, Portrait Class





COME ALONG, GIRLS!  
BY DR F DETLEFSEN  
Honorable Mention, Genre Class

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Contributions relating to photography in any and all of its branches will receive our careful consideration. While not accepting responsibility for unsolicited contributions, we will endeavor to return them if not available, provided return postage is enclosed.

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Kisses and laughter, here's the end :
A wiser end could scarcely be.
You were our lover and our friend,
Old Year, and so the world and we
Throw kisses to you as you wend
Your way and speed you merrily.
— CHESSON.

January The New Year comes and the Old Year goes. But what does the New Year hold, we ask ourselves? There are shining doors of opportunity daily opened to us. On the past, it is true, the great doors of opportunity are barred and bolted. But on the future, the doors are wide open inviting us to enter. Never before in the whole history of photography has there been such a promising outlook as there is for the year 1904. The manufacturer and the dealer are getting closer together. They are lifting standards, and simplifying processes, and achieving results unheard of a year ago. Daylight developing, stereoscopic effects, and color photography are nearing

a solution. And it behooves us to enter through these doors upon the vast inheritance that awaits us. It is a golden opportunity that should not be missed. Let us hope that some strong spirit soaring above his surroundings will write his name high up upon the sculptured pillar of Fame during the coming year.
Daguerre Salutem !

Michael Angelo Emerson, in his "Society and Solitude," says that "every genuine work of art has as much reason for being as the earth and the sun. The gayest charm of beauty has a root in the constitution of things. The Iliad of Homer, the Songs of David, the Odes of Pindar, the Tragedies of Æschylus, the Doric Temples, the Gothic Cathedrals, the Plays of Shakespeare, all and each were made not for sport but in grave earnest, in tears and smiles of suffering and loving men." Measured by this standard the works of Michael Angelo hold a high place in the world of art and can be of great service to the photographic art student who aspires to do artistic work. All his subjects are very serious in intention, yet, while his supremacy in art is acknowledged by all, but few can understand rightly the full meaning of this art, since it is so profoundly impressive. Both as a painter and sculptor he has excelled all other men, and his wonderful frescoes in the Sistine Chapel and his masterpieces of statuary have fascinated the world for over four hundred years. His means of expression was always the human body in action. It was in this very love of action and in his passion for the human form that lay the elements of Michael Angelo's art. As he wrote in one of his sonnets :

"Nor hath God designed to show himself elsewhere
More clearly than in human forms sublime."

"In his art," says the critic Symonds, "a well-shaped hand, or a throat, or head, a neck superbly poised on an athletic chest, the sway of the trunk above the hips, the starting of the muscles on the flank, the tendons of the ankle, the outline of the shoulder when the arm is raised, the backward bending of the loins, the curves of a woman's breasts, the contours of a body careless in repose or strained for action, were all works pregnant with profoundest mean-

ing, whereby fit utterance might be given to thoughts that raise man near to God."

To those who have been privileged to view the works of this master in the originals, the truth of this statement goes without saying. To all others we advise a study of his pictures and statuary through photographs, so that the power and beauty of his wonderful art may sink into their minds and possess their souls with its profound truth and deep impressiveness.

**Greek Art** In all ages of culture, it has been the special function of Greek art to furnish serious students with the model and ideal of artistic form. Michael Angelo learned this lesson early from the Greeks, and later on he himself mastered the principles of classic art in his statuary and paintings. This is the special value of his work to the student of to-day. For, to the subtle Greek sense of line and form, he has added also the new ideal of action, as opposed to the old Greek ideal of repose, which has always been a leading canon of Greek art.

His statues, even the seated figures, seem ready to move on the slightest provocation. The strenuous modern energy of his David and the frescoed prophets add an entirely new motif to the elegant calm of the Greek statue.

The question then naturally arises, if the classical influence helped this great Italian master to produce his masterpieces, and was his great and acknowledged source of inspiration to the closing years of his life, how much more can the student of to-day be benefited by learning to enjoy the beauties of Greek literary form and antique works of art? For hand in hand with this cultivated taste for enjoying these ancient Greek masterpieces can but come the power to produce right models and standards of art, whether in painting, sculpture, or photography.

**Camera Culture** A new form of culture is rapidly taking shape in the educational and artistic world to-day, and the principal factor in it is the amateur photographer. There are many people who have, by instinct and training, a sense of harmony and proportion, and a good eye for beauty generally, but who utterly lack the ability to draw things successfully. To such people

the modern camera, with its superb equipment of lens and shutter, is a boon. It has replaced the sketching block and pencil of the artist, and bids fair, in the near future, to become a universal medium for the expression of artistic thought and feeling. The mechanical work of taking pictures has been so simplified that it is now brought within the capacity of most people who will only take the time and trouble to learn it properly. But the right use of the camera should develop the artistic faculty and enable one to choose what will make the most pleasing picture. It will help to focus the camera properly, in order to get the best effects of shifting lights and shades, and will transfer to the sensitive plate the outlines of the picture as the mind of the artist conceived it. This is the new form of culture that merits the attention of progressive people all over the world. And the camera may yet be counted as one of the chief blessings of recent years.

**Book Illustration** We give in this issue a large number of book reviews of recently published books illustrated by photography. Up to about twenty-five years ago, book and periodical illustration was practically limited to wood-engraving. Steel and copper plate had its place as well as lithography, but the bulk of the illustrating was done by wood-engravers. To-day the half-tone plate has superseded all these processes, and almost all modern illustration is now produced in this way. The use of wood-engraving is the exception not the rule, and it only serves when used to keep alive the memory of an art that is dead. A glance at the pages of these books will show that great skill and inconceivable pains are devoted to the making of these half-tone plates. It is true that the photo-chemical part of the process by itself is very inadequate because it is relatively flat and colorless. But its charm of tone and value can be given by the artist finisher who instils life into the plate by strengthening its blacks, and enhancing the high lights, varying the gradations of light and shade to suit the artist's conception of his picture.

The value of photography in book illustration lies in the fact that it simplifies the process amazingly. The original is reproduced with

fidelity and accuracy, and sometimes the engraved proof, thanks to the finisher, is even better than the original. What a world of possibilities it opens up for the photographer of to-day. And how many will be equal to the opportunity of figuring in illustrated literature and pictorial periodicals during the year to come?

**The Edition de Luxe** The response to our offer has been very gratifying to us, as we received many more orders than we had expected or prepared for, and were compelled to refuse a number received after the time limit set. As too large a subscription list will defeat the purpose of the edition, we propose to limit the number of copies printed in the future to the quantity that we can properly handle, and reserve the right to refuse orders beyond the limit set.

The price of future numbers will be \$1.00, and yearly subscriptions will cost \$10.00 in the United States. Those who ordered the January number may subscribe for not more than six months at the original rate of \$7.50 until Jan. 30, after which time the new rate will apply to them also. Subscribers wishing to insure receipt of their copies may have them securely packed and registered on payment of twenty-five cents a number, or may order them sent by express collect. We cannot replace copies lost in the mails, as we have no reserve stock.

**New Postal Camera Club** There are already several postal camera clubs in existence in the United States, run upon different plans, and exerting a more or less wide influence on photographic standards and progress. While a number of our subscribers belong to one or another of these associations, there are hundreds of enthusiastic photographers who do not belong, and who do not realize the benefit to be derived from such an association. Helpful and earnest criticism is the surest help to progress, and this is the thing which a postal club furnishes. We invite any of our readers who would care to join a new club to send a print with name and address to F. R. Fraprie, Room 324, 170 Summer street, Boston. If a sufficient number respond, a club will be formed, and further details furnished. The yearly dues will probably not be more than fifty cents, but this detail will be settled after organiza-

tion. The mounting of the prints will be made a special feature of the albums.

**The Progress of the Year** In accordance with our annual custom it may be profitable to pause and review the photographic progress of the year that has just passed. While no great discoveries are yet reported, advances have been made in several departments of photographic activity, and the work of the photographer is thus made easier.

The scientific subject which has most engrossed the lay press is the preparation and properties of the radio-active metals. These substances have been largely investigated by the use of the photographic plate as a measurer of radio-activity and exert on it action similar to that of the X-rays. A small amount of radium in a leaden tube may be conveniently carried about by the surgeon to replace a cumbersome X-ray outfit, and great hopes are entertained for the new substance as a curative agent in the treatment of cancer, lupus, etc. What modifications the properties of these substances may cause in our chemical theories it is yet too early to predict.

An improvement in lighting, which will probably prove to be of great importance to photographers, is the Hewitt mercury vapor lamp. This is a vacuum tube in which the light is produced by the passage of an electric current through mercury vapor. The light is almost wholly lacking in red rays and so gives a wrong idea of colors; but it is composed largely of very actinic rays and is even more efficient than the arc light for photographic work. As the cost of operation is considerably less than that of the present electric lights, it bids fair to be soon in general use by photo-engravers, portrait photographers, and printers. Platinum prints can be made by its aid even more quickly and uniformly than by sunlight.

In photographic material a great advance is the N. C. film which is orthochromatic and dries perfectly flat. The use of this very sensitive film by the beginner is made possible by the Kodak developing machine, without which these films are fogged by too bright dark-room light. It will probably soon cause a better knowledge of true color value among amateur photographers.

## Notes and News

TREATISE ON HIS "ONE MAN METHOD OF PHOTOGRAPHY." By Milton Waide, New York, the Author. Price, \$1.00.

Mr. Waide here expounds his "One Man Method of Photography" in a well-printed little book. He details in full his method in treating the customer and making the photograph. He gives all the formulæ which he uses, and describes in detail his method of making and mounting prints. The book cannot fail to be helpful to any photographer who wishes to get out of the commercial rut, and it likewise contains many practical hints which will be useful to the amateur.

DEVELOPING: ITS USE AND ABUSE. A Text-Book for Professional and Advanced Amateur Photographers. By Henry G. Abbott. Chicago, Hazlitt & Walker. Price, 25 cents.

Mr. Abbott treats the subject of development from the standpoint of rational development, disagreeing with those who develop by factors or by timing methods. The methods which he propounds are largely taken from French sources, a fact which he notes several times, but they are, perhaps, here first made accessible to English readers. He gives many formulæ for various developers, and a very useful table for modification of the developer.

HILL TOWNS OF ITALY. By E. R. Williams. Boston, Houghton, Mifflin & Co. Price, \$3.00, net.

This is unquestionably one of the most charming books of travel that we have seen for some time. It treats of a country away from the beaten tracks of travel and is full of historical and artistic interest. No one who contemplates a visit to Italy should fail to take this book and include these towns in his itinerary. It is the very essence of Italian art-life and literature. The photographs are carefully chosen, and the half-tone reproductions add much to the vital interest of the book. On the whole, next to the trip itself, the perusal of these pages will serve to fill an idle hour with much pleasure and profit, to one deeply interested in Italian life and history.

THE HEATH READERS. Boston, D. C. Heath & Co. Third Reader, price, 40 cents; Fourth Reader, price, 45 cents.

The ever-growing application of photography to educational purposes is exemplified in these two readers, in which the majority of the illustrations are well-chosen photographs instead of the usual stock cuts, with no particular application to the subject treated. Knowing the difficulty of finding a photograph which will exactly illustrate any given subject, we can find only praise for the choice of photographs here. An exceptionally

large amount of the matter is standard literature, well chosen and well suited to the age of the pupils for whom it is intended.

THE ART PORTFOLIO OF THE INTERNATIONAL STUDIO. New York, John Lane. Price, \$5.00.

Here we find collected and mounted, ready for hanging or framing, fifteen reproductions by various processes, in one or more colors, giving a fairly good representation of the range of subjects represented in this periodical. The reproduction of color is remarkably good, and several of the subjects are well worthy of framing. A special offer in connection with this portfolio may be found in our advertising pages, to which we refer the interested reader.

THE BRITISH JOURNAL PHOTOGRAPHIC ALMANAC AND PHOTOGRAPHER'S DAILY COMPANION, 1904. London, Henry Greenwood & Co.; New York, G. Genert. Paper, 50 cents; cloth, \$1.00; postage, 25 cents extra.

The usual bulky volume of this annual is at hand, and is the same useful companion to the desk and dark room as in previous years. As the stock imported is small, readers desiring this volume would do well to send in their orders at once.

INDEXES FOR THE PHOTO ERA Indexes and title-pages have been prepared for Volumes X and XI of the PHOTO ERA, and will be mailed on request to any reader who desires to bind his volumes. Indexes for any volumes from III to IX may also be had. In this connection we would call attention to the fact that we are prepared to bind volumes of the PHOTO ERA, or fill broken sets. The prices may be found in our advertising pages, to which those interested are referred.

WINCHESTER, MASS. There was an exhibition of photographs made by residents of Winchester, shown in the town hall during December.

The pictures were collected by Messrs. Geo. H. Eustis, Frank J. Wills, and J. Eastman Chase, and their idea of holding a purely local exhibition, encouraging new exhibitors and interesting the school children in the work of the camera, seems to be a suggestion which may be adopted with profit in other places where there is not yet a camera club.

Space in the town hall was secured so that the pictures might remain for several weeks, giving an opportunity for thorough study. There were a number of fine portraits, genre studies, and landscapes; the genre class being particularly strong in artistic merit. An interesting feature of the exhibition was a group of pin-hole landscapes by Mr. W. H. W. Bicknell, whose etchings are familiar to art lovers. Messrs. Herman D. Murphy and Herbert W. Taylor made the awards.



A NINE-FOOT VAULT  
BY PEARL S WATERS  
Honorable Mention, Sports Class





A WET DAY  
BY THOMAS A MORGAN  
Honorable Mention, Landscape Class



THE ORACLE  
BY NELLIE COUTANT  
Genre Class



THE BEND OF THE RIVER  
BY C F CLARKE  
Honorable Mention, Landscape Class

# The Round Robin Guild

Specially designed for the Amateur Photographer and the Beginner

Conducted by Elizabeth Flint Wade

(Any amateur photographer may belong by sending in his name and address)

## HISTORIC PICTURE GUILD

Old Archimedes' exclamation, "Eureka!" has become the conventional cry when one has succeeded in unraveling some perplexing question, and the managers of the National Historic Picture Guild feel like shouting it out for they have at last solved the most difficult problem which presented itself, and that was the proper mounting and storing of the Guild pictures. All sorts and conditions of albums and portfolios were examined and discarded, the albums mostly on account of their weight, and the portfolios because they were not easily "get-at-able," and the probability of the pictures being misplaced. The choice of a book has fallen upon a Japanese sketch-book. This book has stout, flexible covers, and instead of being bound the leaves unfold, so that the book may be opened out the entire length. The color is of a deep cream tint, and the paper of so tough a fiber that it would take a great deal of rough handling to tear it; in fact, it is practically indestructible. The paper is a paper that will not discolor with time. So many of our American papers grow yellow and streaked after a few years that this quality of the paper of the Guild books is one greatly to be desired. A picture will be mounted on the right hand page and the left hand page will bear the title of the picture, the name of the artist, and a description of the picture, etc. The book itself will be slipped into a stiff case which will bear on the back the name and number of the book which belongs in it. Thumb-holes are cut in the case to allow of the book being removed easily. The case will not only protect the book from dust and dirt, but when a book is taken from the shelves there will be no danger of its marring its neighbors by the rubbing of the covers against each other. In case it is desired to exhibit the pictures, the book may be opened to its full length and hung on a wall.

The first book of the Guild is now in process of completion and it is so beautiful that a duplicate copy is going to be made to circulate among the Guild branches to show the members the style and manner of preserving the prints.

We want many more Guild members. Please ask your amateur friends to join in this work. A few more vacancies yet on the charter roll. Let us have them filled this month.

## ILLUSTRATING WITH THE CAMERA

Very few amateurs use their cameras for the purpose of making illustrations. If, for any reason, they wish to use a photograph for illustration, they search through

their negatives to find one that will make a picture to fit the subject. Now, why not use the camera as the artist does his pencil, as an instrument to produce an appropriate picture for the subject that is to be portrayed?

Illustrating with the camera opens for the amateur a door into a new field, and one that thus far has been very little traversed.

Aside from the pleasure of making illustrations of special subjects, one can always use them for gift-giving when the annual holidays come round.

Poems of nature are fruitful subjects for the camera. The poet gives word-pictures of certain scenes, and the amateur studies the poem, and then searches for the counterpart of the scenes described.

The present month is the best month for obtaining illustrations of Whittier's graphic poem, "Snowbound." The lines begin with a description of a gray December day, in whose sky is the ominous prophecy of a coming storm. Then comes the picture of the storm, zigzagging backward and forward in its "whirl-dance," driving the snow here and there, dashing it against the window-pane, scooping it from one place only to toss it into another, while the tall trees bend and sway, torn by the wild wind's angry breath. Then we have the scene the morning after the storm, when the earth is just "a universe of sky and snow." Old and familiar objects have taken on marvelous shapes, for strange "domes and towers" have risen up where sty and corncrib stood. The bridle-post is an "old man with loose-flung coat and high-cocked hat." The well-curb has a Chinese roof, and the well-sweep in its snowy guise suggests "Pisa's leaning miracle."

And so the verse goes on, a pen-picture in every line, almost, and pen-pictures which are most charmingly brought out by the skilful amateur in real pictures of black and white.

Doubtless, no poem has been more quoted than the lines from Tennyson's "Brook":—

"Men may come and men may go,  
But I go on forever."

In fact, these lines are all that a great many people know of this bit of word-painting, every stanza of which makes vivid pictures before one's mental vision, and pictures which may easily be made real by a judicious use of the camera, from the brook's "haunts of coot and fern," on where it hurries by "thirty hills," "the little town," slips "under the bridges," and lingers by "field and fallow," till at last it "joins the brimming river."

Bryant has two beautiful poems which are especially

adapted for illustration with the camera. One is the "Unknown Way," and the other is the "Planting of the Apple-tree." Our "Arbor Day" exercises would furnish the subject for the first stanza of this latter poem, "Come, let us plant the apple-tree;" a flowering branch would illustrate the lines "a world of blossoms for the bee," and an old-fashioned china jug filled with sprays of flowers the line, "flowers for the sick girl's silent room." Another picture subject is "fruits that drop . . . and children come to seek them in the grass;" the bare boughs of the tree illustrate the words, "when winds go howling and the tree is stripped of fruit and leaves;" while an appleparing-bee would be capital for "girls peel its fruit by cottage hearth." The words, "the wind the fruitage shall bear to coasts that lie afar," suggest a ship in full sail, and a picture of an apple orchard, with its long, tree-bordered aisles, will answer the question that "men shall ask in what fair groves they grew." A scene in a sheltered corner of a country burying-ground will make a beautiful illustration of the stanza,

"The years shall come and pass, but we  
Shall hear no longer where we lie,  
The summer's songs, the autumn's sigh,  
In the boughs of the apple-tree."

In the concluding scene the children "of that distant day," gazing on the mossy stem, ask who planted the tree, and the gray-haired old man makes answer, "A poet of the land was he," and, of course, for the poet one has a picture of our grand poet, Bryant.

One need not necessarily confine himself to poems for subjects for illustrations. He can choose some special subject, as flowers, trees—roads even make most interesting series. A glimpse of a road suggests so much to one with imagination. One always fancies it leads on into charming and picturesque regions. One can find hundreds of quotations to fit his pictures of roads, though one does not look for them simply under the word "road." There are street, highway, lane, path, pathway, beaten path, thoroughfare, track, beaten track, turnpike, etc. A Roget's "Thesaurus" will give many more synonyms of road, and one can make a list, and then look through collections of quotations for the words. He will find many, for poets delight in word-pictures. Here are a few examples: "Along the quiet wood-road, winding slow;" "The broad, and plain, and beaten road;" "Up the steep hill trod out a path;" "Where the path we walked began to slope;" "A narrow street that clambered toward the mill;" "And stood by the road at the gate;" "Through the short, sweet-smelling lanes;" "Along a rough and weary road;" "Where the hedgerow cuts the pathway," etc. "Stepping down by zigzag paths" would be an appropriate title for a path cut in the cliffs and leading down to the beach, and "At night along the dusky highway" a good title for a night picture of a country road.

A collection of this kind is extremely interesting, and a good title for it would be "In the Trodden Paths,"

from Shakespeare; or "Sinuous Paths of Lawn and Moss," from Shelley. The frontispiece might be a guide-board picture, and under it the quotation from Shakespeare:

"Knowest thou the road to Dover? Both stile and gate,  
Horseway and footpath."

The German publishers issue editions of certain books, which lend themselves to illustration, but which they print without any illustrations. Every other leaf of the book is blank, and the owner may draw pictures on these blank leaves to illustrate the text. If he cannot draw he may look up suitable pictures and paste them on the blank leaf. The paper is so smooth, and of such firm texture that it may be written on in ink, which makes it more desirable. The amateur may decline to use the pencil or search for pictures, but may make his illustrations with his camera. Such a book is not to be completed in a day or a week, but when opportunity offers, then the illustration is made. A book of this kind is not only very interesting, but in time becomes very valuable.

Why not let one of your New Year photographic resolves be to try illustrating, and see just how fine a negative can be made, and just how artistic a print may be produced from it. Later the PHOTO ERA would like to see some examples of the work, and to reproduce them in the PHOTO ERA.

#### FOG

Fog is the very expressive term used in photography to indicate the appearance on the negative of a sort of veil which obscures the detail and gives to the image the hazy look of objects seen through a mist or fog.

There are two kinds of fog,—light fog and chemical fog. Light fog is caused by the plate being exposed to white light other than that which entered through the lens; to over-exposure of the plate in the camera; to diffused light in the dark room during development, etc., etc. Sometimes a plate is not evenly injured, but the fog appears in spots or streaks. This is called local fog, the causes of which are various. It may be occasioned by rays of the sun striking the lens obliquely during exposure of the plate; it may be diffused light from the intense light of the summer sky; it may be from a ray of light entering the bellows through an over-looked pin-hole; or from a careless exposure of the plate in putting in or taking it out of the plate holder.

Where the plate has been uniformly exposed to a white light the image in development grays over, a sort of mist seeming to cover the plate.

Local fog is quickly and easily removed from a plate. Take a piece of clean chamois, draw it smoothly over the end of the finger, dip it in alcohol and rub the places gently until the spot disappears. As the chamois becomes blackened, substitute a fresh place. If the fog is very dense it may be removed with a solution of hypo and red prussiate of potash. Make a saturated solution

of red prussiate of potash, and a solution of hypo, one ounce to eight of water. To use take one-half ounce of the potash mixture and one ounce of the hypo solution. Dip a fine brush in the solution and apply evenly and quickly to the fogged places. Rinse at once and if not sufficiently reduced repeat the process. Rinse a moment or two in the plain hypo solution, then wash well and dry.

The halation around a window is a species of local fog, the cause being that in order to expose the plate long enough to obtain images of the objects in the room the window is very much over-exposed, and the light acts on the sensitive salts beyond the outline of the window, giving the hazy appearance called "halation." It may be removed in the same way as any local fog.

If fog is caused by a leak of light in the bellows of the camera the spots of fog will all occur at the same place on the plates. The remedy for this is simple,—repair the bellows.

To test a camera to see if it is light-tight, place a plate in the holder, put it in the camera, withdraw the slide, and without opening the shutter expose the camera to the bright sunlight. If on development the film is clear the camera is light-tight.

ANSWERS TO CORRESPONDENTS

G. R. C.—To write your name on the part of a negative which was not affected by light, so that it will show white in the finished print, take a fine drawing pen and India ink and write your name backwards on the film

side of the negative. It will then show white when a print is made from the negative.

A. W. S.—The discoloring of your velox prints in brush development is due to the fact that the developer on the brush oxidizes by too much exposure to the air. The brush should be rinsed in clear water frequently, and you will have no trouble with stained prints.

Frank K.—A slow plate and a very short time exposure gives better results in snow pictures than snapshots. Snap-shots give too sharp contrast between lights and shadows. The best time of day for taking the pictures is either in the early morning or late in the afternoon.

Caroline L. L.—The plates which you ask about are among the best on the market. They run very uniform, and one is usually sure of good results.

B. B. Grant. — In the Guild Department of the PHOTO ERA for January, 1903, and in the Crucible for March, 1903, you will find directions for preparing photographic gold.

Dr. W. S. Ramer, 49 Mercantile Block, Salt Lake City, Utah, has pictures of Utah and the Mormons, also Colorado scenery, which he would like to exchange with members of the Guild.

The editor of PHOTO ERA would like the Southern members of the Guild to send good pictures of Southern war scenes, houses, battlefields, etc., and would like to have them sent at an early date.

PHOTOGRAPHIC EXHIBITIONS AND COMPETITIONS

SOCIETY OR TITLE	DATE	ENTRIES CLOSE	INQUIRE OF
Chicago Salon.....	Dec. 29-Jan. 24	Dec. 15	Soc. of Amateur Photographers, Art Institute, Chicago.
Brooklyn, N. Y. Camera Club.....	Feb.	.....	U. G. Dodson, 776 Manhattan Ave., Brooklyn.
Second International Salon in Marseilles .....	Feb. 7-23	.....	M. le Dr. Casteuil, 20 Cours de Chapitre, Marseilles, France.
North West London P. S. ....	Feb. 11	Jan. 28	J. S. Fairfoull, 13 Addison Road, Walthamstow, England.
Exposition Internationale de Photochromie .....	Feb. 15-Mar. 15	Nov. 15	M. le Prés. du Comité, 44 rue des Mathurins, Paris, France.
Cripplegate P. S.....	Feb. 29-Mar. 3	.....	Geo. H. Depledge, 17 Hazeldene Road, Goodmayes, Chadwell, Essex, Eng.
South London P. S. ....	Mar. 5	Feb. 20	W. C. Marshall, 41 Glendon Road, Lee, S. E., England.
Nottingham Camera Club.....	Mar. 9-12	.....	Arthur Black, 9 Bowers Ave., Nottingham, Eng.
Croydon Camera Club .....	Apr. 6-13	.....	C. V. King, Hurst Bank, Selsdon Road, Sanderstead, Eng.
Salon de l'Exposition, Arras.....	May 1-Oct. 4	Apr. 5	Comité de l'Exposition, Arras, France.
Louisiana Purchase Exposition.....	May-Nov.	Jan. 30	John A. Ockerson, Chief, Dept. Liberal Arts, St. Louis.

GIVER	CLOSES	PRIZES
Kodak N. C. Film Competition.....	June 10	£500—209 prizes.
Kodoid Plate Competition.....	June 10	£300—99 "
Kodak Developing Machine Competition .....	June 10	£200—96 "
Photogram, Arundel St., Strand, London.....	Monthly	One guinea and half guinea.
The American Boy, Detroit.....	Monthly	\$2, \$1.
National Sportsman, Boston.....	Monthly	\$5, \$3, \$1, \$1.
Browning's Magazine, Boston .....	Monthly	\$5, \$3, \$2.
Leslie's Weekly, New York.....	Weekly	\$10, \$5, \$1.
Buffalo Express.....	"	\$5 to \$25.
New York Mail and Express .....	"	\$5.
San Francisco Chronicle.....	"	\$5, \$3, \$1, \$1.
St. Louis Star.....	"	\$5.

## Book Reviews

THE AMERICAN ANNUAL OF PHOTOGRAPHY AND PHOTOGRAPHIC TIMES—BULLETIN ALMANAC FOR 1904. Edited by Spencer B. Hord. New York: The Anthony and Scovill Company. Paper, 75 cents; postage, 15 cents extra. Cloth, \$1.25; postage, 20 cents extra.

PHOTOGRAMS OF THE YEAR 1903—A PICTORIAL AND LITERARY RECORD OF THE ARTISTIC PHOTOGRAPHIC WORK OF THE YEAR. London: Dawbarn and Ward; New York: Tennant and Ward. Price, paper, \$1.00; cloth, \$1.50, net.

DIE PHOTOGRAPHISCHE KUNST IN JAHRE 1903. Ein Jahrbuch für künstlerische Photographie. Herausgegeben von F. Matthies-Masuren. Zweiter Jahrgang. Druck und Verlag von Wilhelm Knapp in Halle a. S. (In German.) Price, paper, \$2.50, post free.

Although we have once reviewed the English annual in our last issue, we recur to it here in order to make a comparison with the two other artistic photographic annuals of the year. These three books are not strictly comparable, for each has a distinct plan and purpose, and each worthily fulfils it. The American annual is rather a storehouse of interesting and useful articles, illustrated by interesting pictures, than an attempt to collect what is best in artistic photographic work of the past year. The illustrations are well reproduced and well printed, although sometimes in colored inks, which seem better suited to an advertising booklet than to a photographic annual. The choice of pictures is one that will please the multitude of photographers as being closely assimilated to their own standards of work and thought, and pictures of the class, which we have been wont to call "fuzzytypes," are conspicuous by their absence. The few pictures to which are attached well-known names more or less associated with the recent progress of American photography are no exception. All in all, the book, while not at all reflecting advanced pictorial standards in this country, is one well calculated to please its clientele, and the new editor, Mr. Hord, is to be congratulated on his work.

The English annual is wider in its artistic scope, and attempts to register the progress of the year in all countries where photography is regarded as having some claim to rank with the fine arts. This is accomplished in large measure by reproducing the work of the exhibitors in the two English exhibitions, but in addition a specialist in each country contributes a criticism of its work and a collection of its pictures. This year Japan comes in for the first time, but fails to make much of a showing, a fact which is somewhat surprising in the case of a nation as artistic as we are accustomed to think the Japanese. Mr. Osborne I. Yellott contributes an interesting and candid article on American work, and

numerous reproductions of American photographs are given.

The German Annual is by far the most sumptuously gotten up, containing two photogravures, and a portrait from life in colors, by Dr. Miethe, which, we believe, is the fourth that he has published. While, in a sense, Dr. Miethe has solved the problem of color photography, it is evident that the expense and limitations of the method will prevent its immediate general adoption. The book contains a number of full-page illustrations, and many in the text, all faultlessly reproduced and printed. While the majority of the work is German, the representation of American, French, and English work is adequate, and the whole selection of illustrations will appeal to those who desire to see the highest artistic achievements of photography to date. Doubtless, some of it will be caviar to the general public. The text includes a number of dissertations on various phases of artistic photography, and a very comprehensive and just review of the exhibitions of the year in all countries, all in German.

THE LAND OF HEATHER. By Clifton Johnson. New York, The Macmillan Company. Price, \$2.00, net.

The author of this book has combined camera and pen in his own inimitable fashion to give his impressions of the daily life of the Scot, from the ragamuffins of "Auld Reekie" to the crofters of Skye. Mr. Johnson, in this trip, as in his previous ones, has succeeded in gaining the confidence of the people among whom he has traveled and lived, and he shows them to us both by word and picture, with the sympathetic touch of one who knows, rather than the hasty characterization of the globe-trotter. The book gives an excellent picture of everyday life in several districts of Scotland, and the pictures are excellent photographs of the people and their occupations, rather than of their architectural achievements.

THE SONG OF THE CARDINAL; a Love Story. By Gene Stratton-Porter. The illustrations being camera studies from life, by the author. Indianapolis, The Bobbs-Merrill Company. Price,

This pleasant little story of bird-life is a powerful piece of pleading for the protection of our birds, and not only gives its humanitarian lesson well, but shows the result of careful observation and study of bird habits. The illustrations, photographs of wild birds by the author, form the best series of pictures of a single species of birds in the natural state that has yet come under our observation. The story and the pictures both will please every lover of nature.

Any book reviewed in the PHOTO ERA may be ordered of us.





THE HAMMOCK  
BY MRS W W PEARCE

# PHOTO ERA

## The American Journal of Photography

VOLUME XII

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NUMBER 2

### A February Landscape

But Winter has yet brighter scenes—he boasts  
Splendor beyond what gorgeous Summer knows  
Or Autumn with his many fruits, and woods  
All flushed with many hues.  
Come, when the rains  
Have glazed the snow and clothed the trees with ice,  
While the slant sun of February pours  
Into the bowers a flood of light.

Bryant.

## The Photo Secession Exhibition in Washington

CHARLES E. FAIRMAN

**A**MONG the recent events which have made a valuable impression upon the art lovers of Washington, none has perhaps aroused greater enthusiasm or provoked a greater amount of criticism than the exhibition of the Photo Secession, which occupied the Hemicycle of the Corcoran Gallery of Art during the last two weeks of January. This interesting exhibition was held under the auspices of the Capital Camera Club, the leading photographic organization of the city, a society which has done much for the cause of photography and the creation of higher ideals photographically.

I am aware that names are sometimes misleading, and that wrong impressions are often thereby unintentionally conveyed. The instance of the small girl who was amazed at the large amount of government property in this city, and who defined the government as a big fat man, is an illustration of the thoughtless manner in which impressions are formed. So it has happened that the term Photo Secession has, to some, conveyed the idea of an aggressive, bellig-

erent organization bent upon the capture and conversion of all things photographic to their own selfish ends. This becomes something of a misnomer when we find that the purpose of the new organization seems to be directed to the building up of the cause of pictorial photography in this country through the medium of representative exhibitions of photographic work of an artistic character, held at different convenient points throughout the country, thereby enabling those in love with photography and in sympathy with better things along art lines to see what is being done in the photographic world, and to understand better than ever before the class of work that is accepted by some as a standard. It is the Greater University idea carried out in photographic directions.

The exhibition, as a matter of statistics, consisted of 159 pictures from artists from Maine to California. Some of the artists represented are not accredited members of the Photo Secession, but this makes neither for or against the society. A work of art is not properly consid-

ered unless it stands on its own merit. The name of the maker should not add to or detract from its quality. Some of the work has been exhibited at other places in this country, but this has nothing to do with the merit of this exhibition, and the reflection is only valuable when we compare this exhibition with others where the work is required to be of recent production.

The appearance of the exhibit when viewed as a whole was pleasing. It is true that there were some instances where one was led to wonder why large light-colored mats were used in the framing of pictures of a moderate size, but even these seeming inconsistencies have their value, in that they relieve an arrangement which might otherwise become monotonous, and also bring you face to face with the question of suitable framing—a question which can better be decided by seeing pictures on the wall than by any fine-spun theory that art books can advance or untested ideas support.

I have said that this exhibition has probably provoked more criticism than any other recent art event in Washington. It is from this that the greater benefit has been derived. Work that

pleases, and merely pleases, has but little worth in the direction of art education. The work that arrests your attention and by its departure from beaten tracks arouses your dislike and perhaps almost tempts to ridicule, is the work that presents to the earnest mind new problems, new points of view, broader ideas of what others are thinking; and the result of this thought stimulates the mind to inquire if these things are true as matters of art.

While it would be pleasant to speak of the many good things and universally admitted sane things this exhibition contained, and, perhaps, to some of interest to combat some of the theories advanced as new thoughts in photographic art, space will not permit to refer to the work even under a general classification.

The Photo Secession movement is still in its infancy, but it seems to give promise of a vigorous and healthy development; and so long as its efforts are directed along the channels indicated by this exhibition, it should be recognized as a sincere friend to photographic art progression, and, as such, given a hearty welcome and cordial support.

## Enlarging from Films with the Optical Lantern

C. HUTCHINSON JOHNSON

NOW that the season of short days and long evenings has returned to us again, numerous amateurs have unearthed their lanterns, both the enlarging instrument and the good old magic lantern; and it is with the users of the latter that I should like, with the editor's permission, to have a brief chat. Many amateur photographers must be aware that, under certain conditions, the magic lantern, or, to be more scientific, the optical lantern, forms an excellent enlarging apparatus. The chief drawback is the small size of the condenser, which limits to a great extent the size of the negative that can be used.

The measurement of the diagonal of the negative must be equal to the diameter of the condenser, which in all standard instruments is  $3\frac{1}{2}$  inches; thus a quarter-plate is the largest size that can be carried in the lantern, and then only a portion of the negative can be enlarged.

But there are numerous users of the small film cameras of the folding pocket variety, producing most excellent negatives smaller than quarter-plate, who will, I am sure, derive great satisfaction in being able to make very praiseworthy enlargements from their small films. Now, enlarging from films requires a little more care and skill than enlarging from glass plates,

and the following wrinkles, which have all been derived from personal experience, will, I hope, help to prevent the enthusiast from meeting with some of the disasters which befell me at the outset. The instrument which I used, and which, by the way, was kindly lent to me, was of the ordinary magic-lantern type, of good make, and had done excellent service, from missionary meetings to school treats. It was provided with a three-wick lamp and a quarter-plate carrier, which is the most convenient size for our purpose. I must here remark parenthetically that even some of the smaller films may be a trifle too long to be entirely included by the condenser, and therefore the portion of the negative and the subject must be carefully considered beforehand. Having then set up the lantern and the easel for carrying the bromide paper, the next thing is to look round for stray beams of light. Some workers advocate placing the lantern in a box, but this I found was quite unnecessary, and, moreover, it was difficult to get at the carrier, etc. A few large pieces of cardboard placed against the lantern at the end and sides are quite enough to shut off any extraneous light, and a thick cloth or two placed round the base of the front extension will effectually exclude any light shining directly upon the bromide paper. The light reflected upon the ceiling is of no consequence, and it is surprising what an amount of reflected light bromide paper will stand without fogging, provided the light does not shine directly upon the sensitive surface. And now we come to one of the most important operations in film enlarging, namely, the mounting of the film between glass plates. Let the amateur beware of merely sandwiching the film between the glass and then dropping it into the carrier, for he will discover later on, probably whilst focusing, strange-looking streaks making their appearance over the choicest portions of the picture. These streaks mean the ruin of the negative, and are due to moisture forming on the glass, produced by the heat from the lamp, causing slight local melting and adhesion of the film to the

glass. There is no subsequent cure for this that I know of, and therefore prevention is the wisest course to adopt. This preventive method is quite simple. Having cleaned two quarter-plate pieces of glass, thoroughly warm them over the chimney of the lantern. Then treat the film in like manner, being careful to keep it moving horizontally, and on no account allow a corner of it to get into the chimney, for it will sizzle and blaze up instantly. This is very important to remember, as films are highly inflammable. Having got the film thoroughly hot, place it between the two glasses, and bind with a few turns of thread at each end; then place in the carrier, with the "film" side towards the objective. Having focused, place a box or stand of some sort underneath the lens, and arrange a piece of ruby glass to lean against it. This answers the purpose of a ruby cap, and the exposure is made by removing the ruby glass. The duration of exposure must be determined by experimenting with small pieces of paper. Some parts of the negative may require double and treble the amount of exposure which others need, and these latter must be shielded by oscillating a piece of cardboard in front of the bromide paper. It may happen that only the middle portion requires longer exposure—as, for instance, the long crest of a wave. This can be effected by cutting a long narrow slit in a large piece of cardboard, and moving it up and down, thus preventing a rigid outline. A thin, cloudless sky can be greatly improved by using a piece of ground glass as one of the supports for the negative, and working upon the roughened side with a soft pencil. A great variety of dodges of this sort can be resorted to in order to produce a satisfactory enlargement, and various treatments will suggest themselves to the worker after he has experimented a few times. Development of the latent image is not the purport of this chat, but I will conclude my remarks in the praise of amidol as giving pure blue-black or soft gray tones according to strength, while at the same time it is well known as a clean and simple developer to use. — *The Amateur Photographer*.

# Photographic Fallacies

PROF. F. A. WAUGH

THE photographers are a bright lot, — up to the times and down to date, if anybody is. No cheap incantations for them! They know the reasons why.

And yet every individual photographer has his little tricks and prejudices. One thinks that a negative must be made *thus*, or a print *so*, quite oblivious to the fact that everybody else does it otherwise. Every man has his pet formulæ, his favorite goods, and his infallible recipes.

Then there are certain more or less stupid tricks and convenient misconceptions that have got abroad until pretty nigh everybody believes in them. Here are a few:

1. *That pyro should always be made up in cold water.* The same direction is given for making up the reducing agent in many other developers, but it is more commonly insisted on with reference to pyro. Now I always use heat, and commonly boil all my developing solutions. Once a friend of mine — one of the best photographic experts in America — wrote a book and worked in this fallacy, all embroidered and tucked and flounced at the bottom. When I asked him why pyro must be made up cold, he said he didn't know, but he had always heard say that it must. "Come to think of it for the first time in my life," he said, "I can see why it would be better to boil the pyro solution. It drives out the air."

2. *That only enough developer should be used to cover the plate.* This dictum is based on a curious theory which I could never understand;

but even if I could understand it, it would be wrong, because it disagrees with the facts. If the theory were right, then tank development could not be the brilliant success that it is when rightly conducted.

3. *That a print must have microscopic detail in order to be "technically good."* In all criticisms of photo prints we are constantly seeing this either assumed or explicitly given out. Nothing could be more fallacious. Technique is the means by which a photographer arrives at a given result. If now I desire to make an artistic picture, — to achieve a certain pictorial effect, — it makes no earthly nor heavenly nor diabolical difference what means I adopt, if only I arrive at the effect sought. In photography it is absolutely and universally true that "the end justifies the means." I may make my exposure on a strip of sensitized tripe, develop it in buttermilk, fix it with Mrs. Pinkham's Vegetable Compound, print it on a yard of corduroy, and bake it in the kitchen range, — if only the thing when it is done is a good picture, and the means have been convenient, then the technique is perfect. To my mind microscopic definition is bad technique in most cases, because it is confusing and unnecessary to the subject in hand.

4. *That it is "all in the lens."* It is not all in the lens. A proper man can make good photographs through a needle-hole, and without any lens at all. Neither is it all in the camera, nor all in the plate, nor in the developer, nor the printing medium. Chiefly it is in the man behind the gun.

## The Boycott that Failed

The Missing Links are hardly missed;  
The Salon show is poor;  
The Royal's reached a height to which  
It never rose before.

Eben the doubting Thomas is  
Less skeptic than of yore,  
Hector has stopped his hectoring,  
And Hinton hints no more.

—Photography (London).



THE ELBE FROM THE BASTEI  
BY FRANK ROY FRAPRIE

PHOTO  
ERA



THE TOY RABBIT  
BY STILLMAN SHAW



LAKE KILLARNEY IN THE RAIN  
BY WENDELL G CORTHELL





THE FUEL GATHERER  
BY J EASTMAN CHASE

# Hints for Picture Makers

REV. F. C. LAMBERT

## STRONG AND WEAK POINTS IN A PICTURE

Elaborate systems of strong and weak points have been industriously put forth, but to little or no practical purpose. Indeed, all elaborate systems tend to cramp rather than help the artistic sense. Principles rather than system are wanted.

Roughly summarized, the chief points are—Symmetry is not so interesting as asymmetry. Hence the center is a weak rather than a strong position. The chief light or shadow or object will lose some of its interest and force if placed centrally, unless matters are so arranged that this position is no longer such as to suggest symmetry. Again, the margins of a picture are weak, because one's interest is "brought up sharp," as it were, by these margins. Strong contrasts of light and shade, for instance, attract our attention. If such be at the margins, our attention is thus drawn there to find ourselves looking at the edge of the mount or frame.

## ART AND ORDER

The late H. P. Robinson gave photographers many valuable bits of advice and pregnant sayings. Not the least forceful was his trite aphorism, "A work of art is a work of order." One has only to stroll through any gallery of good paintings to feel how true this is. In every case we are impressed with the feeling that the composition was carefully thought out—that the artist did not just "knock off a thumbnail sketch" of what happened to be before him. Chance snap-shotting and great art are as "the poles asunder." True enough, one does at times see snap-shots which are *suggestive* of well-thought-out compositions, but there is always lacking just that indescribable convincing something which, in a work of fine art, tells us that we are seeing a man's mental conceptions rather than his visual impressions. Selection, arrangement, design, intention, inclusion, omission, are all words which in part, but in part only, convey "something of that something"

which makes and marks fine art and separates it from mere accident.

## GLITTERING OBJECTS

An eminent art writer gives to painters two bits of sound advice which apply with quite equal force to the photographer's craft. First he says, "Avoid subjects which glitter," for not only are they very difficult but they are also seldom, if ever, satisfactory. How often have we all seen photographic attempts to portray the glittering, dancing sunlight on the dimpling ocean's surface. Has it ever struck you as a complete success? Did it not suggest spots of white paper rather than leaping, sparkling sunlight? Its very essence is movement: and that the photographer has killed.

Again, those tiresome, small bright patches of sky showing between the leafy openings in the summer-clad trees. True, they are not glittering lights in the ordinary sense, but they are of the same nature in their relative intensity. Or again, consider the small wet patches of mud and sand, or clumps of wet seaweed or rock. These are quite still and yet your camera fails to convey their natural appearance.

## LOVE AND LABOR IN FINE ART

Gambier Parry has very truly pointed out that fine art comes of the union of love and labor. Without love it has no true inwardness, no real motive, no reason for its existence; and without labor it cannot be brought to perfection and fruitfulness.

The photographer here has a fine sermon text, and one much needed. Were photographers only to deal with subjects that they truly love we should not have the frequent waves of fashion in mud flats or gray days or silhouettes, or whatever may be "on" for the moment.

If we had a little more steady, persevering, well-directed labor, our exhibitions would, or at least ought to, show us a better average of quality with a corresponding and not unwelcome diminution in quantity. "Fewer and better"

photographs would be a most welcome change.

#### SIZE OF THE SUN OR MOON IN A PICTURE.

For *pictorial* purposes, the sun and moon may be regarded as of the same size. Their pictorial size is entirely a matter depending on the distance from the eye that the picture is intended to be placed. Thus, if the picture is designed to be viewed at three feet from the eye of the spectator, then the diameter of the moon should be  $\frac{3}{8}$  of an inch. If the viewing distance is one foot, then the diameter should only be  $\frac{1}{8}$  inch.

Similarly, a moon one inch in diameter should be viewed at eight feet distance. This may seem to the reader to be gross exaggeration on the side of smallness. But let him take a photograph of the next full moon, with a lens of twelve-inch focus, and he will find that its diameter is as above given. Or, if using a lens of any other focal length, he will find that the diameter of the moon is, *roughly* speaking, about one-ninetieth of the focal length of the lens used. Hence the wafer-made moon in most photographs is many times too large.—*The Photographic Art Journal*.

## Foreign Abstracts

**Cyanotype Process** For the preparation of a blue-print paper which gives an intense blue with clear whites, E. Forestier recommends the following process :

#### Solution A :

Distilled water . . . . .	100 g.
Iron ammonium citrate . . . . .	27 g.
Ammonia . . . . .	a few drops

#### Solution B :

Distilled water . . . . .	100 g.
Potassium ferricyanide . . . . .	13 g.

#### Solution C :

Saturated solution of oxalic acid.

#### Immediately before use mix :

Solution A . . . . .	26 ccm.
" B . . . . .	20 ccm.
" C . . . . .	6 ccm.
Alcohol . . . . .	20 ccm.
Distilled water . . . . .	10-20 ccm.

The mixed solution keeps only a short time. The coating of the paper takes place in the usual manner. A few drops of hydrochloric acid are to be added to the wash-water. (Le Nord-Photographe X, No. 12.)

**Skin Discoloration by Hydrochinon** In respect to the removal of brown stains on the fingers caused by hydrochinon, Dr. G. Tobias states that these cannot be quickly and completely removed, especially when the skin has become rough through frequent contact with alkali solutions. Acids or solution of bisulphites

lighten them somewhat. The reason for the stains is well known. A solution of hydrochinon with potassium carbonate on shaking with air immediately becomes brown with the liberation of the well-known odor of chinon; the solution colors the skin brown. The dyeing action of chinon on the skin, as well as the fact that it gives other insoluble brown products in presence of air and alkalies were long ago observed. Sulphites hinder these reactions. The fingers will take on little color, if washed immediately after development, or often in the course of a long operation of this nature. (Phot. Mitteilungen, 1904:44.)

**Use of Old Bromide Papers** Using a large quantity of old Velox paper, C. F. Stiles has studied the possibility of developing the same to produce unfogged prints. His process consists in adapting the M. Q. developer, which he uses to fit the needs of the case. He first places an unexposed strip of fresh paper in the developer, and determines the time which elapses before the appearance of fog. A piece of old paper, tested in the same way, naturally fogs sooner. By the addition of determined quantities of potassium bromide to the developer the epoch of the appearance of fog is delayed, and by adding increasing quantities of bromide, a developer composition is at last reached which permits the development of unfogged pictures. The same

principle can be applied to the utilization of old dry plates. In testing unexposed paper or plates it is advisable to develop only one half, in order to be able to exactly determine the beginning of fog by comparison with the other part. (Photo-Revue, 1903:118.)

**Unal** Dr. Reiss reports as follows on the qualities of unal, the new Agfa developer, which is rodinal in solid form. It dissolves easily in water to form a red-violet solution, the color of which does not affect the development. It turns darker in the air without losing strength, and in a well-closed vessel keeps a very long time. A solution of 2 g. unal in 100 ccm. water works quickly, has no tendency to fog, and gives good, soft negatives. Potassium bromide has a considerable retarding effect. Unal gives an excellent developer for gas-light papers with the addition of a little potassium bromide. The whites are clear, and the shadows pure black. Unal is also well-adapted for tank-development, using 10 g. in 6000 ccm. of water. The development lasts from 4 to 8 hours according to the length of the exposure, and gives strong negatives full of details.

**Matt Varnish** A note by Professor Aarlandt in the "Photographische Mitteilungen" (1904:10) may serve to explain occasional non-success in the making of dull drying varnish so often employed for shading negatives, and as a ground for pencil work. It was found that even when the same samples of sandarac, mastic, or dammar were used there was some uncertainty as to the result, and the difference was traced to the kind of ether used. When the so-called "photographically pure ether" was used a beautiful matt surface resulted, but other samples of absolutely pure ether gave a glass-like film. The photographic ether was found to contain traces of water and alcohol, and it not only dissolves the resins more completely than pure

ether, but it gives a matt film. Consequently, Aarlandt recommends the use of the cheaper kinds of ether for preparing matt varnish. (Amateur Photographer, 1904:66.)

**A Non-actinic Developer** Herr Fungler (Phot. Mitteilungen, 1903:383) recommends an addition of phenolphthalein and rosolic acid to the metol-hydrochinon developer, in order to protect the plate from the action of daylight. To each litre of the metol-hydrochinon developer there is added 10 ccm. of 10 per cent solution of phenolphthalein in alcohol, and 0.5 g. of rosolic acid. When the solution is, as ordinarily, made up in two liquids, the phenolphthalein should be added to the metol-hydrochinon solution, and the rosolic acid to the solution of alkali. A similar proposal has been made before, but in a somewhat different way. An acid fixing-bath is required to clear the film. (Amateur Photographer, 1904:6.)

**Metoquinone Developer** E. Forestier gives the following formulas for metoquinone developers for stand development. The solutions made as follows, which are suitable for normal development, are to be diluted with five or six parts of water:

Water	. . . . .	6,000 ccm.
Metoquinone	. . . . .	9 g.
Anhydrous sodium sulphite	. . . . .	60 g.
Sodium carbonate	. . . . .	10 g.
Potassium bromide	. . . . .	2 g.

or this:

Water	. . . . .	6,000 ccm.
Metoquinone	. . . . .	9 g.
Formosulphite	. . . . .	60 g.
Potassium bromide	. . . . .	2 g.

The sodium carbonate of the first formula may be replaced by 30 ccm. of acetone. (Le Photogramme, 1903:170).

# The Crucible

**PHOTOGRAPHY IN COLORS** From Germany come details of a new and decidedly simple process for producing photographs in the colors of nature from ordinary negatives. This process is the invention of Lieutenant-Colonel Josef von Slawik of the Austrian army, and is being placed upon the market by a prominent Berlin firm which has protected it by patents in all countries. The theory of the process is simply that the rays of the spectrum affect the photographic plate in different proportions according to their color, the blue rays having the most effect upon the plate and the red rays the least. Consequently the blue sky in a negative is the densest portion, and red objects will be represented by nearly clear glass. Acting upon this idea Slawik prepares a printing paper by superposing layers of carbon tissue in the order red, green, blue. When this prepared tissue is printed under an ordinary negative, for instance, a landscape containing blue sky, green leaves, and a red brick house, as the sky is densest, only a small portion of light penetrates the blue tissue, rendering this insoluble. In the green portion of the landscape, represented by the half-tones of the negative, the light penetrates not only the blue layer but also the green, rendering this insoluble, and in the transparent portions of the negative, representing the red, enough light passes to render all the layers insoluble. The combined tissue after printing is transferred in the usual manner to a permanent support and then developed with warm water. In the sky the red and green tissues dissolve away leaving the blue tissue. In the foliage only the red pigment washes off, leaving the various gradations of the green foliage in evidence. In the red portions of the negative the whole tissue has become insoluble and remains.

This outline of the theory of the process, while giving interesting and valuable results in some cases, is incomplete, for it is not possible to reproduce all colors by combinations of blue, green, and red. The process has undergone important modifications during its preparation for the market, including the addition of a yellow layer, which appears to be necessary, and it seems probable that the paper must be prepared differently for different sorts of plates. Orthochromatic plates will, of course, render colors in a different scale, and require a different coating of the paper.

**THE VERANT** The firm of Carl Zeiss, in Jena, has recently perfected and put upon the market an instrument which renders possible the viewing in relief and in natural size, of photographic prints taken by the amateur with a single lens, giving practically a stereoscopic effect without using two lenses. This apparatus is constructed on principles discovered by Prof. A. Gullstrand, and consists of a combination of two menisci, which form a virtual image of the picture. This gives the same impression as far as perspective and accommo-

dation are concerned, as the normal eye would obtain from the natural landscape in question. Aside from color, the impression caused by the photograph will exactly correspond with that produced by the natural object, when the Verant is of the same focal length as the objective with which the picture was taken. The idea that relief can be seen by monocular vision may appear novel to many readers, but the Verant gives the same criteria of distance as one eye alone, and the conditions for monocular relief, as defined by Sir David Brewster, are fulfilled with the exception of those relating to color.

As to the necessary length of focus, we quote from a paper by Dr. von Rohr, read before the Royal Photographic Society:

"When the Verant lens has a focal length different from that of the camera objective, the perspective of the print is altered; in the case of a longer Verant focus, the possible alterations correspond to the extreme cases already enumerated when dealing with the wrong impression conveyed to a normal eye by a short focus picture. In the case of a shorter Verant focus, the possible alterations are exactly the reverse, as the angles of vision become larger than the angles at the entrance pupil of the camera lens. The conditions are now precisely as in the case of a field-glass, for it is the very function of a telescope to enlarge for the observer's eye the angles at the object side enclosed between the axis and the pencils entering the objective serving here as the entrance pupil of the telescope. It is probably due to the very limited extension of field in the telescope that this alteration of perspective is not better known, for the whole field of a telescope of say four diameters will hardly exceed 10 degrees. Using glasses of still less power—in opera glasses, for instance, sometimes not more than 1.2 diameter is realized—the angles at the object side are certainly increased, but at the same time, their telescopic alteration becomes too inconsiderable to enforce itself as a deterioration of perspective. For our Verant lens we may easily infer from this example that we need not be too particular in choosing its focal length in accordance with that of the camera objective. We have therefore planned two different Verant foci, one of 11 cm. (4.3 inch), and one of 15 cm. (5.9-10 inch). If we allow for the equivalent focal lengths a discrepancy of  $1:6.5 = 15.4$  per cent., the former Verant lens will suffice for objectives from 9.3 cm. (3.7 inch) to 12.7 cm. (5 inch), and the latter from 12.7 cm. (5 inch) to 17.3 cm. (6.82 inches.) Our Jena experiments showed for differences of such order, no appreciable alteration in our apprehension or relief; or in other words, the alteration due to such differences is not apparent to the average observer if he judge from memory alone without comparing the impression gained in the Verant with the impression produced by the objects themselves."



THE END OF THE ISLAND  
BY WILSON BAILEY

PHOTO  
ERA



THE ROAD FROM THE BEACH  
BY H W TAYLOR



MY FATHER  
BY WM SHEWELL ELLIS



REEDS AND RUSHES  
BY DR P W BERKS



THE FLUTE PLAYER  
BY FRANK J WILLS

PHOTO  
ERA



AN AUGUST AFTERNOON  
BY T EDWARD SCHIEDT



PORTRAIT  
BY NOTMAN STUDIO





THE GIRL WITH THE MUFF  
BY W A BOGER

# PHOTO ERA

## The American Journal of Photography

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### ADVERTISING RATES ON APPLICATION

Vol. XII FEBRUARY, 1904 No. 2

Still lie the sheltering snows, undimmed and white,  
And reigns the winter's pregnant silence, still  
No sign of spring save that the catkin fill,  
And willow stems grow daily red and bright.

**February** In studying how to make February landscapes, there are two things the photographer should always have present to his mind. One is the material facts in the pictures and the other is the spiritual meaning that can be read and is easily understood by those who are experienced.

We would advise in this, as in all nature study, that a careful survey be made of all the fine artistic renderings of nature at the camera club exhibitions or in fine art museums, where pictures of rare merit with fine landscape motives are often hung. In such pictures will be found almost invariably beautiful composition and space arrangements that lead up to creative work of a high order.

Photographs from nature direct are valuable because of their sincerity and truth-

fulness, but photographs from works of art, the reproduction of the world's masterpieces in painting, statuary and architecture, enable us not only to see things as the masters saw them, but also to enter into their feeling, thought and aspirations in a measure. If we can learn to look with their clearer eyes and see the beauty which delighted their more appreciative souls, the world will become larger and lovelier for us through this experience.

### Value of Art Study

No one who has watched the development of artistic work in photography during the past few years can fail to recognize the supreme importance of art training as a condition necessary for success in picture making. The workers who are recognized to-day as leaders are almost invariably those who have had some definite and systematic instruction in art. The introduction of drawing, manual training, modeling and color work into the schools has created new standards for us, and a broader and fuller recognition of art as a necessary part of every liberal education has resulted, so that to-day no man is considered to be truly cultivated who is ignorant of drawing, modeling, tone values, composition or the value of lines in a picture. Not that one should have mastered all the technicalities of art, but that one must have at least an intelligent view of it, if only to know how to enjoy pictures rightly. All art has been defined to be "the product of creative self-activity using the study of nature and of art for certain definite conscious ends," the drawing, composition, modeling and tone values in a photograph, for instance, being only the means by which this activity is expressed or shown. Photographic art then is the expression of this creative ability in the individual, through one's photographs. We believe the time is ripe for directing public attention to the value of photography as an educational appliance, and we urge upon our readers the value of some definite system of art instruction instead of the haphazard way by which there is no clear understanding of what art really is. Study the works of the masters. Such study and knowledge will quicken the artistic sense within you, inspiring you with fresh inter-

est and leading you to work towards higher ideals.

Study classic art. Learn to appreciate Greek statuary and the work of the early Italian masters. See how they sought to express their ideals of beauty and harmony in form and color and in space relations, for it is only through this sort of appreciation that can come the power to create right models and standards, whether painting, sculpture or photography be the form of art expression.

*Photo Miniature* Probably the most valuable of this very practical and useful series of photographic monographs is the November 1903 number. It is devoted to Hurter and Driffield's system of development with an account of their photo-chemical investigations and method of speed determination.

These men work with the idea that the photographer who combines scientific methods with artistic skill is best able to produce good results.

They define a "perfect negative," as one in which the opacity of its gradations is proportional to the light reflected by those parts of the original object which they represent. Such a relationship exists to the plate when exposure is correct.

Terms are then defined, leading up to the basis of making a photometer apparatus with photographs and diagrams.

In conclusion they say: "The production of a photograph is governed by natural laws and has a definite cause. The same cause, under the same conditions, always produces the same effect. The law which governs the action of light on the sensitive plate teaches us that only a limited range of such action is available in photography if truthful representation be demanded; and hence the necessity of accuracy in exposure.

"Having, by means of correct exposure, produced a latent image true in the relationship of its gradations, the developer enables us to produce a metallic image, of which the gradations shall be equally true.

The developer employed, however, must be so constituted that its exact effect can be predetermined, and no developer will comply with this

demand which does not act in conformity with the law of constant density ratios.

Only by clearly grasping and working in harmony with the laws governing the action of light and the action of the developer, can we really become masters of technical photography."

*Sure Enough Success* "A successful 'mission preacher,'" says the *Epworth Era*, "recently had an amusing experience. He had been holding a 'mission' in a certain rural parish, and, on its conclusion, paid a round of farewell visits with the rector.

"Among them was one to a certain dressmaker who had attended the services regularly, and who told him how much she enjoyed them, and how sorry she was they were all over.

"Do you think the mission has done any real good?' he asked.

"O, yes, sir, indeed!' she replied, heartily.

"What makes you think so?'

"Well, sir,' the dressmaker answered, 'I don't think you'd doubt it if you only knew how many people have called during the last few days to pay their bills.'"

In like manner, the PHOTO ERA's mission during the past year has proven a great success. We know that it has done a real good because so many people have sent in their subscriptions, especially during the past two months.

We feel that our efforts to interest, help and please our readers have proved to be a great success and are highly appreciated, for, after all is said, the supreme and final test is the cheerful surrender of the subscription price. Measured by this standard we are a sure success.

*Photography in Advertising* The connection between photography and advertising is daily becoming closer and more intimate. For next to the object itself, a picture furnishes the most exact basis of dealing between the prospective buyer and the advertiser; furthermore, photography and engraving processes are now so combined that many of the most widely advertised commodities can be faithfully cheaply, and attractively represented in display advertisements. An analysis of the advertising in current periodicals, for instance, will show

clearly the part which photography has in their make-up. For attractive pictorial effects, many of the advertisers of babies' foods, for instance, depend on the use of actual portraits to prove results claimed. Different articles of clothing are shown with attractive models; engravings direct from shoes show even the exact texture of the leather. No successful advertising man's outfit is complete to-day without a camera of some description.

So it comes about that many advertisers attract attention by the use of choice photographic subjects, and further, seek to obtain the goodwill of the public by the distribution of prints of various kinds. Among the subscribers to the PHOTO ERA are many of the leading advertising managers, who, for their own personal interest and because of the application of photography to their uses, find much valuable material and suggestion in its pages. Advertisers necessarily seek the best in illustrations and engravings, hence the patronage of the PHOTO ERA is extending among appreciative business houses. As to the PHOTO ERA itself, hardly any one passes a copy unnoticed. Since now-a-days nearly every one has a camera, the importance and influence of the field which the PHOTO ERA occupies is not realized at first thought. Various sports and pastimes are ably represented by numerous publications, but not every one rides a bicycle or has a motor carriage, or plays golf, while on the other hand, bicyclists and others interested in out-door pastimes are all photographic enthusiasts.

Photography to-day does not stand merely for a mechanical record of events, but is in an era of wonderful development. There are numerous new "schools" of photographic art, the exploiting of which forms some of the most interesting features of the PHOTO ERA.

**The Edition de Luxe** The February number of the *edition de luxe* which is published at the same time as the regular number, has as special supplements two photogravures. "Testing Fruit," by H. A. Latimer, is a good example of genre work, showing sym-

pathetic treatment and careful handling. Our readers, who have in the past seen several examples of Mr. Latimer's work in our pages, will agree that this is in no respect inferior to his usual high standard of artistic photography. The photogravure is the work of John Andrew & Son of Boston. "The Garden of Ann Hathaway's Cottage," by A. W. Elson & Co., is a very pleasing photographic handling of a naturally picturesque spot which is yearly visited by thousands of Americans.

The March issue of the *edition de luxe* will be an especially fine number. There will be special supplements which will be fully as attractive as those presented in January. Owing to the printers' strike, both February and March numbers will be greatly delayed and we cannot make definite statements as to the March issue at this writing. We have plans for future numbers well under way and will be able during the year to give our subscribers much more than we have promised.

We feel highly gratified by the words of commendation of the January number which we have received. We feel that the *edition de luxe* has a mission and we have received the support needed to enable us to worthily carry out this mission. We trust that this support will continually grow greater, because the more we receive from our subscribers the more we can give them in return.

**Printers' Strike** We owe an apology to our readers for the delay in issuing the February number. A strike that has extended to the leading printing offices of the city, has held up the publication for five weeks. It is curious to note that although we actually paid the schedule demanded by the Union, a slight difference of opinion between the Typothetæ, or master printers, and the journeymen has prolonged the struggle to the present. Meanwhile the PHOTO ERA is being ground between the upper and the nether millstones. We ask our readers to bear with us patiently in this trying emergency, which we trust will only be of brief duration.

# Filing and Indexing Negatives

EDWIN W. CREED

WHEN an amateur photographer has a number of negatives that he values, the question of how to safely and at the same time systematically store them, so that any one of perhaps several hundred may be got at in a few moments, is oftentimes a perplexing one.

Having accumulated quite a number of negatives, which for want of a better method were stored in empty plate boxes, and frequently having to use some one, made months or perhaps a year or more before, the writer soon found that this method was decidedly out-of-date and the cause of much loss of time and temper.

There are many systems for filing or indexing negatives on the market or described in the photographic magazines and annuals, none of which seem to meet the requirements of a perfect system.

Upon consulting with a friend whose business is the manufacture of cabinets and other filing devices, we decided that a strongly made box of width and depth sufficient to take the size of negative used, and long enough to hold as many as could be readily carried when necessary, would be the most convenient.

I use principally 5 x 7 plates. The boxes for filing them are 15 x 7 $\frac{1}{4}$  x 5 $\frac{3}{4}$  inches inside, made of half-inch cherry, the corners dovetailed together. There is a sliding cover. Box and cover are nicely stained and polished. At one end of the box inside is fixed a block tapering from 1 $\frac{1}{4}$  in. at the bottom to a blunt edge at the top. A similar block is arranged to slide in a slot in the bottom of the box; this block is kept up close to the negatives, allowing them to be tipped at a slight angle in either direction for examination. It would be a good idea to put a number on a narrow gummed label stuck on the back at one corner of each negative. Number one negative is placed in the box next

to the fixed block, film side out. Then comes a sheet of paper cut just the length of the negative and a trifle wider. Any smooth paper will do. I use a good quality of wrapping paper. Number two negative follows, then another sheet of paper, and so on until the box is full.

At the top of these sheets of paper is written the title of the negative, its number, and any information about it that may be useful, such as light, stop, exposure, make of plate and developer used.

For those who use velox or other developing paper it would be well to note the grade of paper, light, distance from light to printing frame, and exposure necessary to give the best results.

Before every tenth negative is a numbered guide which facilitates quickly finding any one wanted.

For indexing, lettered guides 4 x 6 in. arranged alphabetically, with as many sheets of paper as needed, ruled and lettered as below, between the guides are used:

DATE OF MAKING	No.	TITLE
8-16-96	52	Niagara Falls, view from Canadian side

These guides and the corresponding sheets of paper are contained in a suitable cardboard box.

At one end of each completed file is a label card indicating what numbers the box contains.

I have had the system in use for several years and find it very simple, convenient, and elastic.



THE PLAYFUL KITTEN  
BY NELLIE COUTANT





INTERIOR  
BY ELMER ORLANDO WELD



WILL HE DRINK?  
BY A G SMITH

PHOTO  
ERA



SHEEP  
BY J EDWARD GREENE

# The Round Robin Guild

Specially designed for the Amateur Photographer and the Beginner

Conducted by Elizabeth Flint Wade

(Any amateur photographer may belong by sending in his name and address)

Does one realize what he possesses in his camera pictures? It is practically a materialized memory. The pictures show contemporary life as it actually exists. The dress, the environments, architecture, furniture, public functions, pageants, localities, which yearly undergo changes, etc.; all these and more are preserved by the camera, and the amateur who has used his camera with discretion has a "picture vista" of his days and years. The impressions made on one's memory are more or less weak, and as new impressions come, the old ones fade away and become vague and indistinct. Not so with the impression made by the sun on the sensitive plate. It is as clear as when first made, no matter how long ago it was produced.

The work of the National Historic Picture Guild is to systematically make photographs of all objects or places connected with our nation's history. A picture is always an object lesson. It conveys a fuller and more vivid conception of facts than can any description, however graphically written.

Do we not all remember the interest which was manifested by the reading public in the reproductions of those old daguerreotypes and ambrotypes which embellished the pages of the "Life of Lincoln," written by Nicolay and Hay? To many those old pictures of persons and places connected with that well-beloved President meant more than did the printed page. They made the past seem so vivid, so real! They were indeed the materialized memory of those eventful years.

What those pictures were to us, such may our pictures be to our posterity, if we join in this great movement of the Historic Picture Guild.

All that the amateur is asked to do is just to secure pictures of historic interest in his "little corner of the world." The work of arranging, classifying, and storing is the volunteer labor of the PHOTO ERA. Don't you want to be "in it"? Here is one of the chances for which Glory McWhirk was always pining. You know she complained that

"All the good times are goin' by, and I'm not in 'em!"

Here is a good time for you, my amateur fellow-worker, to be "in." Won't you come in at once and swell the ranks of what promises to be one of the grandest movements of the century? The promoters are now in council, and great are the plans which they are perfecting.

Send name and address at once, that you may be enrolled on the roster of the Guild.

An old proverb says: "One gets many things for singing besides the pay." One might paraphrase this

and say: "One gets many things out of photography besides just the making of pictures in the camera."

One often stumbles on strange and curious phenomena in pursuing the legitimate course of making pictures. In using some printing-out paper one day, not long ago, I took a book into which to slip the unexposed paper, it being more convenient than to open the package when a fresh sheet was needed. Some of the unused paper was left in the book and forgotten. Three or four weeks afterward the book was opened, and on the paper were imprints of either printing or illustrations, as the case might be, of the portions of the pages with which the sensitive paper had come in contact. The portions which had come against the white of the paper had turned to a brown, with a metallic luster, the imprint itself looking like raised work. The prints were fixed in a hypo bath, and when dried retained the peculiar metallic appearance.

This "accidental" experiment suggested "premeditated" experiments, with plates instead of paper. Two prints were chosen—a coarse wood cut and a half-tone illustration on glazed paper, and each was laid face down on a sensitive plate, with a plain glass over it to keep it in place, both put in a box and set away in a dark closet. On a third plate was arranged two or three rose geranium leaves, a glass placed over them, and the two fastened into a printing frame. This, too, was placed in a box and set in the dark closet.

At the end of a week the plates were taken out and developed. On the plate which had held the wood cut was not only a strong reversed image of the picture, but the printing on the reverse side of the paper also appeared. The half-tone on the glazed paper had made a faint impression, which in turn produced a print having the appearance of a delicate wash-drawing, while the geranium leaves had made no impression whatever.

Copper and zinc have peculiar chemical properties. A thin sheet of each was procured, cleaned with emery, fresh leaves laid on them, a sensitive plate adjusted over each, and they were relegated to the darkness. These were left for twenty-four hours, then developed. On the plate which had come in contact with the copper was a silhouette of the leaves, with most of the ribs showing, while on the one which had come in contact with the zinc was a most distinct impression showing all the delicate veins of the leaf.

The next experiment was with a page of the old English Primer, using the zincs as a backing for the leaf, and with a letter written over a hundred years ago, in

which the ink was faded and brown, leaving the plates in the dark for twenty-four hours. Fine impressions were obtained of both.

This is really "printing in the dark," without even the radium atom. These experiments are very interesting, and well worth trying. Use the high speed sensitive plate, and keep it from all light until development.

#### METOL

Metol is now one of the most popular chemicals used in developing, and by combining with other developing agents the kind of negative desired is an assured fact.

Metol is a very energetic developer, and brings out detail in the shadows to an extent not accomplished by other developers. It is combined with pyro to bring out detail which the pyro cannot do alone. A well-tried formula is made as follows:

No. 1.	Pyro,	60 grains
	Metol,	46 "
	Potassium-metabisulphite,	100 "
	Bromide of potassium,	10 "
	Water,	20 ounces

Dissolve the metol in the water; add the metabisulphite and the bromide; and when all are dissolved, pour over the pyro.

No. 2.	Sodium tribasic phosphate,	2 ounces
	Water,	20 "

To use, take equal quantities of both, and if action is too rapid, add water to the solution.

Metol combined with hydroquinone is one of the best developers for films. It oxidizes very slowly, and does not become exhausted rapidly. It is the choice for all developing papers, as it does not stain the paper if care is taken to rinse the print before putting it in the fixing bath. A fine all-round formula for metol-hydroquinone is made of

No. 1.	Metol,	30 grains
	Hydroquinone,	30 "
	Sulphite of soda,	240 "
	Water,	16 ounces
No. 2.	Potassium carbonate,	120 grains
	Water,	10 ounces

To use, take equal parts of both, and for each ounce of the combined solutions add one ounce of water.

To keep the metol solution from oxidizing, cork bottle tightly with glass stopper, or turn a little melted paraffin wax over the cork.

The metol-hydro developer produces a negative with fine detail, soft contrasts, and a good degree of density. The metol brings out the detail, and the hydroquinone gives the density. Metol sometimes affects the skin, causing sores, which gradually spread over considerable surface. Zinc ointment is an effectual remedy for this skin poisoning. Metol will not affect the skin if the

hands are rinsed from the developer before putting them into the hypo bath.

For developing snap-shots, pyro with ammonia will bring out detail better than any known combination of chemicals. Formulas have been given in a recent number of the PHOTO ERA.

To develop intelligently, one should learn the nature of the chemicals employed,—what they will and will not do. Then one can control this important part of photographic work and will be able to make successful negatives, instead of producing so many failures.

Non-curling films are now on the market, but have not, as yet, superseded the other films which will curl unless dried properly.

An amateur of my acquaintance has improvised a novel drying rack for films, which is well worth describing. He took a number of old broom handles, and along a line drawn from end to end he put in small pointed wires. He next fixed two rings, or more properly speaking, ring-brackets, at such a distance on the wall that the broomstick would just rest in them. When ready to dry the films, a broomstick is put in the rings, and the films attached by one side to the protruding wires. When the stick is full, it is turned over and the free ends of the films fastened by means of long, sharp-pointed tacks, glass Kodak pins, or by the steel pins with black heads, such as ladies use for dressing-pins. When the films are dry, they will always remain flat, the drying around the stick making them turn outside instead of turning inside, as they are inclined to do when dried on a flat surface. When one stick is full, it is hung up by a loop attached to one end, and another stick filled, etc.

#### ANSWERS TO CORRESPONDENTS

Norman H.—In your formulæ in which the quantities are given in the metric system, you simply substitute grains for grammes, remembering that every gramme is equal to fifteen and two-fifths grains. It is a good idea to learn the metric system, but you can take your formula to a druggist and he will transpose it for you.

B. F. F.—To prevent stripping films from becoming wrinkled when they are detached from their support, mount them on cardboard, as if they were prints, and when dry they will peel off without tearing, and will remain flat.

M. Bacon.—In using sulphite of soda, the crystals of which have become whitened, rinse before putting them in the solution, to dissolve the white powder, which is sulphate of soda.

Emily Gray Bent.—Ortol has much the same action as metol, and was invented by the makers of metol. It will not discolor or poison the hands. The color of the negative is reddish. Ortol is a fine developer for velox papers, giving rich, velvety tones, resembling platinum.

Kate W. G.—The prints sent of snow scenes show that the negatives were much over-developed. This is a very common mistake in the developing of "snow" negatives. The delicate details and half-tones are lost, and the snow has a chalky appearance. The plate should be removed from the developer before the high-lights have become dense; then one has snow with shape, color, and character.

Burt W. W.—To dry negatives quickly, place them after washing in a tray of alcohol for five or ten minutes; drain, and dry in a draft. Another method which renders the film practically impervious to heat is to place

the negative, after being well washed, in a solution of formaline,—one part formaline to sixteen parts of water. Leave it for five minutes; then blot off, and drain and dry near a warm fire. Negatives dried quickly render much better prints than those which dry slowly.

C. G. F.—To bring out more detail in the shadows of a negative which is some what under exposed, remove it from the developer, and without rinsing put it in a tray containing water, which has been made somewhat alkaline. Cover and leave it in the dark for an hour. Then, if not dense enough, return it to the normal developer and develop it again.

PHOTOGRAPHIC EXHIBITIONS AND COMPETITIONS

SOCIETY OR TITLE	DATE	ENTRIES CLOSE	INQUIRE OF
Brooklyn, N. Y. Camera Club.....	Feb.	.....	U. G. Dodson, 776 Manhattan Ave., Brooklyn.
Second International Salon in Marseilles .....	Feb. 7-23	.....	M. le Dr. Casteuil, 20 Cours de Chapitre, Marseilles, France.
North West London P. S. ....	Feb. 11	Jan. 28	J. S. Fairfoull, 13 Addison Road, Walthamstow, England.
Exposition Internationale de Photochromie .....	Feb. 15-Mar. 15	Nov. 15	M. le Prés. du Comité, 44 rue des Mathurins, Paris, France.
Cripplegate P. S.....	Feb. 29-Mar. 3	.....	Geo. H. Depledge, 17 Hazeldene Road, Goodmayes, Chadwell, Essex, Eng.
South London P. S. ....	Mar. 5	Feb. 20	W. C. Marshall, 41 Glendon Road, Lee, S. E., England.
Nottingham Camera Club.....	Mar. 9-12	.....	Arthur Black, 9 Bowers Ave., Nottingham, Eng.
Akron Salon.....	Mar.	Mar. 21	Charles E. Smith, Akron, O.
Brentford P. S.....	Mar. 15	Mar. 3	F. H. Read, Clifden Road, Brentford, Eng.
South Norwood P. S.....	Mar. 24	Mar. 12	C. R. Beckett, 28 Carmichael Road, South Norwood, S.E. Eng.
Northern Exhibition.....	Mar. 25-Apr. 9	Mar. 11	C. F. Inston, 25 South John Street, Liverpool, Eng.
Toronto Salon .....	Mar. 29-Apr. 2	.....	Hugh Neilson, Toronto, Canada.
Cape Town P. Salon .....	Apr. 4	Mar. 13	A. S. Fuller, P. O. Box 470, Cape Town, South Africa.
Croydon Camera Club .....	Apr. 6-13	.....	C. V. King, Hurst Bank, Selsdon Road, Sanderstead, Eng.
Salon de l'Exposition, Arras .....	May 1-Oct. 4	Apr. 5	Comité de l'Exposition, Arras, France.
Louisiana Purchase Exposition.....	May-Nov.	Apr. 1	John A. Ockerson, Chief, Dept. Liberal Arts, St. Louis.
First International Salon in The Hague .....	June 12-July 24	June 1	Sekretariat Haag, Conradskade 63, The Hague, Netherlands.

GIVER	CLOSES	PRIZES
Kodak N. C. Film Competition.....	June 10	£500—209 prizes.
Kodoid Plate Competition.....	June 10	£300—99 "
Kodak Developing Machine Competition .....	June 10	£200—96 "
Photogram, Arundel St., Strand, London.....	Monthly	One guinea and half guinea.
The American Boy, Detroit.....	Monthly	\$2, \$1.
National Sportsman, Boston.....	Monthly	\$5, \$3, \$1, \$1.
Browning's Magazine, Boston .....	Monthly	\$5, \$3, \$2.
The Book-Lover, New York.....	Monthly	\$5, \$3, \$2, \$1.
Leslie's Weekly, New York.....	Weekly	\$10, \$5, \$1.
Buffalo Express.....	"	\$5 to \$25.
New York Mail and Express .....	"	\$5.
San Francisco Chronicle.....	"	\$5, \$3, \$1, \$1.
St. Louis Star.....	"	\$5.

## Notes and News

**THE HEATH READERS.** (Boston, D. C. Heath & Co.)  
Fifth Reader and Sixth Reader.

These two books show evidence of great literary and artistic care in preparation. The selections are for the most part taken from standard literature, and are not only interesting, but in the highest degree helpful in the formation of a sound literary taste in the pupil. The illustrations are, wherever practicable, photographic, and are well chosen. Some of the landscape pictures, indeed, carry out in the highest degree the spirit of the poetry which they illustrate. This whole series of readers marks a step forward in modern educational methods.

**NEWARK,** The Newark Camera Club will hold its annual spring print competition for members in April. Entries will be received until March 31. Prizes will be awarded in five classes and a public exhibition will be held at a time and place to be announced later.

**CINCINNATI,** The Cincinnati Public Library has recently been very fully photographed by Rev. E. M. Fairchild of Albany. The photographs will be used as part of an illustrated lecture on American libraries to be delivered in England, where a widespread interest in American library methods has recently been awakened.

**NEW YORK CITY.** G. Gennert has published and has ready for free distribution a new edition of instructions for the manipulation of Elliott's carbon tissue. This little book is a simple and concise textbook on the carbon process, the most useful, most versatile, and most permanent process in the whole range of photography. The pamphlet will be sent free to any one desiring it. We would also call the attention of our readers to the opportunity afforded this month to get a supply of their favorite developer at half price, advertised by this firm.

**ST. PAUL,** The Carbona Company are introducing two new photographic papers which are claimed to have great advantages in the way of simplicity of manipulation and artistic effect. According to the published directions the process is very simple, and results are easily and uniformly attained. Browns and blacks at will may be had in the finished prints. Literature and a comedy called "Kodaker's Redemption" may be obtained on application.

**NEW YORK CITY.** On Tuesday, February 23rd, at 8.30 P. M., Mr. Arthur Hewitt will lecture before the Camera Club, at its rooms, 5 West Thirty-First Street. The subject is announced as "Here and There in the Life of an Illustrator."

**NEW YORK CITY.** The C. P. Goerz Optical Works favor us with a copy of their new catalogue which is both a valuable compilation of lens facts and an artistic and photographic souvenir worthy of permanent preservation. It displays to perfection the manifold capabilities of the modern photographic lens, as exemplified by the productions of this firm.

**ST. LOUIS, MO.** H. A. Hyatt announces that he has moved into new and commodious quarters, where he will have improved facilities for handling his orders and receiving his visitors during the World's Fair. The new address is 316 and 318 North Eighth St.

**LYNN, MASS.** The Lynn Camera Club was organized at a meeting held on the evening of February 16. After electing officers and discussing the details of organization, the club listened to a talk on "Development," by Mr. F. R. Fraprie. The officers are as follows: President, E. D. Lovett; Vice-President, J. W. Snell; Secretary, H. I. Benedict; Treasurer, A. L. Southerland; Executive Committee, A. L. Howland, Edwin Stead, L. D. Ordway, C. F. Pollard, Richard Robbins, Sr.

**NEW YORK CITY.** An easy way of becoming acquainted with the capabilities of some of the most widely used modern developers is afforded by the perusal of the forty-eight page "Agfa Handbook" published by the Berlin Aniline Works, 213-215 Water St. New York. This interesting and instructive compilation, which describes many other photographic necessities as well as the developers, will be brought by a request accompanied by four cents in stamps.

**PITTSBURG, PA.** The latest addition to the list of American photographic periodicals is "Camera Topics, Journal of the Camera Club of Pittsburg." The limited edition appears twice a year at the subscription price of fifty cents. The Camera Club of Pittsburg is an outgrowth of the Photo Secession and bears the linked rings as its emblem. Under its auspices an exhibition of American pictorial photography will open at the Carnegie Art Galleries in Pittsburg on February 6th.

**NEW YORK CITY.** An interesting article recently appeared in "Photography" on the cure of halation, by T. Thorne Baker. The method adopted was coating the back of the plate with Ruby Varnish Bayer, handled in this country by the Farbenfabriken of Elberfeld Co. The results obtained, as shown by photographs, prove that this backing medium is most efficient. Mr. Baker also recommends the varnish for coating plain glass to produce a dark-room safe-light.





LADY'S SLIPPERS  
BY GEO ALEXANDER

# PHOTO ERA

## The American Journal of Photography

VOLUME XII

MARCH, 1904

NUMBER 3

### March

Now are the winds about us in their glee,  
Tossing the slender tree ;  
Whirling the sands about his furious car,  
March cometh from afar ;  
Breaks the sealed magic of old Winter's dreams,  
And rends his glassy streams ;  
Chafing with potent airs, he fiercely takes  
Their fetters from the lakes,  
And with a power by queenly Spring supplied,  
Wakens the slumbering tide.

— Simms.

## Floriculture and Photography

F. A. WAUGH

FLOWERS please us by three qualities : form, color, fragrance. Most people, I am sure, are attracted chiefly by color. I know this is true of children, as any one can prove by very simple experiments. And most people are still children in this respect.

Next to color, I suspect that most persons are fond of flowers for their perfume. This is only a suspicion, however. I have never been able to prove it as I have the proposition set forth above. Every one of us remembers what Dr. Holmes said about the haunting memories brought up by the fragrance of some old-fashioned flower. Many other good psychologists have noticed what a powerful effect flower perfumes have on all ordinary minds. So I am compelled to believe that of the general effectiveness of roses, violets, and carnations, at least a good proportionate third part belongs to their fragrance.

Now, form is the only quality of flowers which can really be photographed. Colors can barely be suggested by the most expert workers

with corrected plates and color screens. Yet form is precisely the quality most commonly neglected by careless and uneducated persons in their appraisalment of plants, flowers, bouquets, and nosegays generally. I am sorry to believe what I say, but I am afraid it is too true.

Amongst the real horticultural connoisseurs this tendency to undervalue form is much less common than with the *hoi polloi*. The experts who spend their lives in bringing up fine strains of pansies, nasturtiums, or carnations know what form is worth. They consider it very wisely. They know that they can tell a high-bred verbena or primrose more quickly by its form than by its color. The very best varieties of nasturtiums are the ones that have large, full, well formed petals. The colors are of quite secondary importance.

All this floricultural dissertation goes to prove that flowers must be considered from a special and unusual point of view if they are to be successfully photographed. We must give up their fragrance altogether. Practically, we

must abandon their colors. I have great admiration for the isochromatic cranks who strive and strive to render color values, but generally I do not think their results are worth the effort. At any rate a flower photographer must learn at once that he cannot render colors in their natural brilliancy. He must be able to see something more than red and yellow in a flower or else he had better put his camera by. If he cannot see and admire forms, he had better learn oil-painting. In fully nine tenths of all flower photographs I ever saw, I am positive that the photographer was attracted to the subject primarily by color.

The conclusion is that the flower photographer must have a good sense of form. He must have this sense not only in the abstract, but in the concrete, as exemplified in bud, blossom, leaf, and branch. In other words he must be so much of a flower lover as to be an expert florist, and so much of a florist as to know his flowers by form.

It will help any one to look over a collection

of pansies in a flower border or at a flower show with this idea in view. Compare blossom with blossom and note how one excels another in form. Forget about color. Notice how the well-grown flower is large, round, and full, like a well-fed alderman. Do not look at nasturtiums for colors or brilliance, but only for form. A poor nasturtium, however, has a bad form, like a brindle horse hitched to a street-car. The well-grown Lili Schmidt or Vesuvius is full, round, and voluptuous. Consider the lilies. Solomon in all his glory never had such togs. Yet the lilies are not fragrant,—at least, most of them are not. They are not remarkable for their colors, either. Many of them, in fact, are dull and lifeless in color. But in their various queenly forms they are easily the reigning beauties of the garden.

What I have been trying to say about the flowers applies also to plants and trees; but if I tried to elucidate and exemplify the whole subject, it would exhaust everybody's patience.

## Metol-Hydrochinon for Bromide and Gaslight Papers

A. K. BOURSALT

WHILE amidol, eikonogen, rodinal, etc., have been widely advocated for the development of gaslight and of bromide papers, the instructions coming with each package of paper, which evidently represent the choice of the manufacturer, are overwhelmingly in favor of a mixture of metol and hydrochinon.

The results obtained with this developer are more reliable and, on the whole, as perfect as those obtained with any other agent. It is inexpensive to make up, keeps far better than amidol or edinol, and works faster than eikonogen or rodinal. Modifications are easily made to suit all brands of papers. The color of the deposit is readily modified to suit the most versatile tastes, and the range of tonalities obtainable is longer than that which can be produced by the use of any other developer. Besides, it is inexpensive, and requires only such chemicals as are conveniently obtained everywhere. In

spite of all these advantages there is a shadow side to this excellent developer. The very quality of being simple in its composition and inexpensive, has led many manufacturers, and especially some of the chemical firms who prepare M. Q. tubes for jobbers and retail dealers, to alter its normal proportion beyond all measure, sacrificing the quality of the results for the sake of lowering prices. The competition and price-cutting have been very keen in that line, and as a result the market is being filled with a host of M. Q. tubes, nameless mixtures irrationally compounded, which have none of the qualities referred to a moment ago.

For a normal metol-hydrochinon developer for bromide paper the hydrochinon should not be in excess: and this is precisely the case with the cheaper M. Q. tubes. As hydrochinon is much less expensive than metol, the manufacturers decrease the amount of the latter and increase

that of the former beyond all proportions. The writer has analyzed tubes of that kind where the proportion of hydrochinon to metol was as high as 10 to 1 (even 12 to 1 in one case).

Is it to be wondered at if, under those conditions, the results are not satisfactory?

Except for special purposes (colored prints) the amount of hydrochinon should never exceed that of metol used. Half of each gives the most powerful and fastest developer. It is evident, however, that to give the best results these proportions will have to be slightly modified to suit the brand of paper adopted. With most of them, twice as much metol as of hydrochinon will give by far the finest prints. The following developer is excellent for nearly all brands of paper on the market:

A.	Metol	. . . . .	50 grains
	Hydrochinon	. . . . .	25 grains
	Anhydrous sodium sulphite	. . . . .	1-2 ounce
	Water to make	. . . . .	20 ounces
B.	Sodium carbonate crystals	. . . . .	1-2 ounce
	Potassium bromide	. . . . .	20 to 30 grains
	Water to make	. . . . .	20 ounces

Take equal parts of A and B for bromide papers. Twice the quantity of sodium sulphite crystals may be used in place of the anhydrous form. For gaslight papers, reduce the amount of water one half and the amount of bromide of potassium as much as possible, until just enough is left to prevent fogging. It is, unfortunately, not possible to specify the exact quantity, as various brands of paper are vastly different in that respect, and as, besides that, the amount depends also largely on the age of the paper, its state of conservation, the quality of the water employed, and many other minor circumstances which it is impossible to enumerate and consider here singly. For certain papers the amount of sodium carbonate had also better be increased to one ounce. For carbon velox, for instance, the formula modified as follows will produce results that will leave nothing to be desired:

A.	Metol	. . . . .	50 grains
	Hydrochinon	. . . . .	25 grains
	Anhydrous sodium sulphite	. . . . .	1-2 ounce
	Water to make	. . . . .	10 ounces
B.	Sodium carbonate crystals	. . . . .	1 ounce
	Potassium bromide	. . . . .	1 grain
	Water to make	. . . . .	10 ounces

Take equal parts of A and B, and add as much of a 10 per cent solution of potassium bromide as is necessary to keep the whites clear,

or as is wanted to alter (with increased development) the color of the deposit.

It is sometimes advisable, when particularly soft gradation, delicacy in the high lights, and transparency in the shadows are desired, or when hard, contrasty negatives are met with, to still further reduce the hydrochinon, or even to omit it altogether. Again, metol alone in bad cases of over or under-exposure will permit of forcing development to a degree which an addition of hydrochinon will not allow. Many careful workers will thus find that besides the developer given previously, it is a good plan to have on the shelf a single solution of metol developer, which will prove exceedingly handy should occasion require. The formula runs thus:

Metol	. . . . .	50 grains
Anhydrous sodium sulphite	. . . . .	1-2 ounce
Sodium carbonate crystals	. . . . .	1 ounce
Potassium bromide	. . . . .	2 to 4 grains
Water to make	. . . . .	20 ounces

For all ordinary purposes and for general use in the printing room, we do not think anything can beat the formula given previously.

When strongly colored results are wanted, up to red chalk with the slower papers, the hydrochinon is then (but then only) slightly increased and the amount of sulphite diminished. Our formula would, for instance, become:

	No. 1	No. 2
A. Hydrochinon	. . . . . 60 grains or 50 grains	
Metol	. . . . . 90 " " 25 "	
Anhydrous sodium sulphite,	100 " " 100 "	
Water	. . . . . 10 ounces or 10 ounces	
B. Sodium carbonate crystals	. . . . . 1 ounce	
Potassium bromide	. . . . . 5 to 10 grains	
Water	. . . . . 10 ounces	

No. 1 contains the largest amount of hydrochinon desirable, and, we repeat it, to be used only when decided color results are aimed at. Hydrochinon has, unfortunately, the tendency to fill up the detail in the shadows of the prints; and while it is desirable to have some in an M. Q. developer to give body to the print, too much of it will cause the loss of the transparency, a quality so desirable and so easily obtainable by a sufficient amount of metol in the developer.

We feel confident that those of our readers who will kindly give the preceding formulas a serious trial will find it difficult afterwards to feel satisfied with some of the ordinary M. Q. tubes now on the market.

# The Correction of Distortion\*

J. TUDOR CUNDALL, B. SC.

IF the user of a hand-camera holds it in the usual position and horizontal, which is by no means easy, even with a spirit-level beside the finder, he gets an image in which there is usually an excess of foreground, whilst high objects and the sky are either absent or crowded up to the top of the picture. This defect can be considerably reduced by holding the camera at high level and using a direct vision-finder, which has the advantage of giving a more natural view of near objects, but does not go far enough unless one elevates oneself to the level of a first-floor window, which is not always possible; and then, though the foreground difficulty disappears, the picture is from an unusual point of view,—*e.g.*, one sees the top of a man's hat instead of his face.

In a stand-camera the trouble is remedied by the rising front by which the lens is raised with regard to the plate; but few hand-cameras possess this adjustment, and in most cases are better without it, as the less complicated they are the more likely are they to be used advantageously, as their use is less deliberate than that of the stand-camera. Again, with the rising front, the lens must be stopped down, or able to cover a larger plate than that ordinarily used, or loss of definition, even cutting off of the corner of the picture, will result.

If the photographer, so to speak, seizes the bull by the horns, and points his camera up, so that the object he wishes to take composes satisfactorily, he discovers, though probably not till he has developed his plate, as the usual finder is too small to show it, that the vertical lines of his picture appear to be tumbling in toward the center. The reason of this is that the rays of light from the bottom of the object have to travel proportionately farther after passing the lens than those from the top, and so diverge wider, giving a conical shape to an otherwise parallel-sided object.

This is got over in the stand-camera by the swing-back, by which, whatever the position of

the lens, the plate is kept vertical, and thus parallel to vertical objects, so that the triangles formed by the converging lines from the object to the lens are similar to those from the lens to the picture, and hence distances between points, or any part of the plate, are strictly proportional to distances between the same points on the object.

At the same time, however, to effect this the top of the plate has to be brought much nearer to the lens than probably the depth of focus of the latter will allow; refocussing becomes necessary; probably also stopping down, to get reasonable sharpness. This refocussing practically puts the swing-back out of the question for all scale-set hand-cameras, even if the stopping down did not make exposure too long for hand support.

From these considerations distortions caused by the inclined plates must always be a difficulty to the hand-camera worker with subjects containing vertical lines, unless some other method of coping with the evil is available. This is fortunately the case. . . .

It is well known that if the distorted image is projected on a suitably *inclined* screen, the rays of light from the portions of the image that are too close together will have further to travel, and so diverge wider than those from the parts that are too wide apart, thus making the distorted vertical lines once more parallel. The same result is of course obtained by inclining the negative instead of the screen. The difficulty, however, of getting focus all over with this method of correction is the same as with the swing-back in the taking-camera, but a small stop may be used, as any required time of exposure can be given. Even this trouble can be avoided, greater distortions corrected, and sharper focus obtained by inclining the screen as well as the negative, but in opposite directions. The inclination in either case need only be the half of what was formerly required, and the image will be sharp all over, even with large aperture.

\* Read at a meeting of the Edinburgh Photographic Society.



SPOTTED CANNA  
BY J HORACE MCFARLAND



FLEUR DE LIS  
BY H G DORSEY



LILIES AND VIOLETS  
BY H G DORSEY



A ROSE AND ITS FRAGRANCE  
BY W E MARSHALL

# Photographing the Wild Flowers

FRANK ROY FRAPRIE

WITH the unloosing of winter's icy fetters, and even before this annual feat is fully accomplished, comes the resumption of nature's activity in the floral line, and the photographer who would record the passing procession of the flowers must be stirring from now on. In the swamps of bleak New England the slant rays of the February sun, with scant power to melt the ice away from the brook-channels, wake up the first plant of the year, and the green and purple hoods of the skunk-cabbage begin to force their way to the light. Even through the frozen covering they will appear, and three or four sunny days will open the fleshy envelope before the frost is fully out of the ground, disclosing the spadix set close with tiny flower dots. The strong odor permeates the air, and the early insects are attracted to do their work of fertilization necessary for the perpetuation of the species. This first subject of the season is a problem which presents difficulties to the photographer. The color of the plant, green and purplish red, will render advisable the use of color-sensitive plates with a filter; the habitat makes necessary rubber boots and determination; the situation, barely protruding from the ground, and against a neutral background, renders good definition difficult. The plant must be photographed in its surroundings, for it has no stem or leaves at this season, to make possible a graceful arrangement at home, even if one were inclined to extend it hospitality. Mrs. Baynes has conquered all these difficulties, and her picture, "Harbingers of Spring," is interesting to both the naturalist and the artistic photographer,—to one for its fidelity and to the other for its good composition.

The same warm days that open the malodorous spathes of *Symplocarpus* cause the pendulous catkins of the alders to thicken and lengthen and sway in the breeze, until at last they shed their yellow pollen in such quantities that the surface of the brook below is covered with rafts of it, which collect in the little bays and backwaters, and color the surface. These tassels lend them-

selves to graceful decorative compositions, as do most of the hanging blossoms, of which so many are unsuspected by the ordinary person,—birch, oak, chestnut, and many others. A good example of this kind of photograph is Mr. Morton's "Butternut Blossoms," in which he has not only portrayed both pistillate and staminate flowers for the botanist, but has produced a most pleasing composition by happy selection and arrangement of his spray.

As the spring advances, the number of flowers worthy of representation increases so rapidly that the choice is bewildering. Many are so fragile that they will not consent to sit for their pictures when plucked, withering almost at once, and withal so retiring that they can scarcely be photographed in their natural surroundings. The photographer will usually turn to the more conspicuous blossoms, and the fields white with daisies, though obnoxious to the farmer, attract his attention. The daisy-field, beautiful as it appears to the eye, rarely appears well in a photograph; but the flowers may be taken home and photographed, standing up well, and lending themselves to arrangement. The centers will appear too dark unless well corrected for color, which has been done in our representation of the subject. Miss Lewers' tangled arrangement gives an impression of the profusion of bloom and crowded growth of the species.

Contemporaneously, or not much later, appear the lady's-slippers,—pink, white, and yellow. Whether in the woods or indoors, these make pleasing subjects, and demand a goodly amount of technical skill. The frontispiece, Mr. Alexander's group of yellow *Cypripediums*, is a truly beautiful picture in every sense, and fully deserves the position of honor which we have given it.

With the full tide of summer the flowers are everywhere, in open field and darksome wood and stilly flowing stream, and the contemplative outdoor picture-maker can at any time withdraw his attention from wide vistas and grand spaces to find pictures *in petto* at his feet. Professor

Waugh has reproduced for us the flaming masses of the prairie primrose, showing with wonderful fidelity the true value of the bright yellow flowers against the green background,—a feat of extraordinary difficulty. Mrs. Gaines has sent us the beauty of her water-lilies from a semitropical swamp,—snow-white emblems of purity rising from noisome depths. Mrs. Baynes brings back to our memory the fragrance of New England fields, the anise odor of the omnipresent yarrow, lover of roadsides and pastures, and the resinous fragrance of the goldenrod, a magnificent specimen, half-emerging in lonesome majesty from the depths of the elder thicket.

These are the examples which are set us. How can we do the like? The material is everywhere; that will not fail us. The question is, How shall we photograph it, and where? To my mind, the place to photograph a wild flower is in its natural surroundings. The picture taken indoors may be more gracefully arranged, may show form and texture of individual flowers better, and so may have both artistic and scientific worth, but the wild flowers always appeal to us more strongly in their native haunts, and we should picture them there. We may also, by not gathering the flowers, serve another important end, especially in the case of many uncommon species. It is a lamentable fact that many of our finest American flowers are in no small danger of proximate extinction, or banishment to the most inaccessible spots. Not only are many flowers shy, retiring before the footstep of man, but our finest species are gathered in such quantities and so ruthlessly, that irremediable damage has already been done. The Hartford fern was torn up for household decoration in such quantities that it was almost totally destroyed, and the legislature of Connecticut was forced to enact a statute to protect it. The trailing arbutus, our New England mayflower, has become scarce in those Plymouth County woods, where it once carpeted square miles of territory. The ruthless gatherers tear up the plants by the roots, cull the flowers, and leave bare woods for the next season, or for all time. The beautiful *Sabbatia*, a shy plant save in that same Plymouth County, where it banks the ponds in late summer with its beautiful pink,

is doomed to early extinction by commercial greed. The American laurel and the ground pine are suffering in the same way, and the Christmas ropes of green would far better be suppressed, than that our woods should be so devastated. So let us picture our flowers where they grow, and leave them to spread their seed to furnish us more for the next year.

To photograph in the woods and fields, we must use a tripod, and the ideal tripod for such work is yet to be built. It must be stable, for in work at close range, and with often long exposures, vibration is absolutely inadmissible. It must be compact, and admit of a long range of height. Some of the foreign telescoping tripods would be desirable on this ground, were they stiff enough, and provided with larger heads, but I have never found one satisfactory for this purpose. The ordinary American tripod cannot bring the camera near enough to the ground except by spreading the legs at a very wide angle, when the stability becomes dangerously small, and the legs develop an uncomfortable tendency to part company with the head. In this position the camera is often held at such an angle that we can only be thankful that no straight lines of human making appear in the picture in unnatural perspective. Nature's children can be looked at from any position.

As the flowers will often grow in places where there is absolutely no photographic distinction between them and their background, it is well to be provided with a stout trowel. This will serve to remove a chosen plant to a more favorable spot, where a rock or tree may serve for a background, or it will help to rid it of neighbors undesirable in the picture. Of course, if either of these expedients is adopted, the soil should be restored to its natural appearance.

For plates, isochromatic should be chosen, and backed if possible. The use of a ray filter is usually advisable, and is imperative when blue or purple flowers are to be taken. Again, it is impossible to truly represent a yellow and white flower, such as the daisy, without such help. The yellow center will appear black, while in reality it is not many tones darker than the rays.

For flower photography under any circum-

stances, the use of a lens of as great depth of focus as possible is necessary. This means a wide-angle lens. The long-focus anastigmat has no place here. Its planes of definition are too close together, and the admirer of a flower picture that is half sharp and half fuzzy has not yet been found.

The exposure should always tend to be a little more than normal. Softness is such a supreme quality of flowers that a harsh negative or print

is absolutely useless. So slight overexposure and development for softness should be the rule. A developer with the full proportion of alkali, a large addition of water, and slow development in a covered tray, will produce the best results. If not enough density is obtained, a short treatment at the close of the operation, with a strong developer, made up with much of the reducing agent, will supply it, or it may be gained by subsequent intensification.

## How to Photograph Flowers

E. J. ERSKINE

FLOWER studies are to some a most fascinating pursuit, whilst others do not seem to care for them at all. This may be because it requires unlimited patience to get the best results, as well as no small amount of artistic taste. Given these, then flower pictures and studies can be accomplished, which are a pleasure alike to the photographer and to the critic who looks on at the work when finished.

It is most difficult to get absolutely good pictures of a plant when it is growing in a garden. To get the texture and softness of the flower, the exposure should be very full indeed; for, be the day ever so still, if the flower itself remains unmoved, the background leaves are sure to be disturbed by some passing puff of air. This imparts a certain amount of "fuzziness" and a spotty effect to the background, which quite spoils the effect of the picture.

On the other hand, if the picture is taken with an exposure short enough to prevent all movement of either the plant or the background, then the result is chalky and hard. The form of the object is captured, sure enough, but the delicate veining and half-tones which go to make up the roundness that forms the chief beauty of the flowers are conspicuous by their absence. In the endeavor to secure detail, forcing is resorted to in the development, which makes a bad job worse. A "forced" plate is always harsh. The blacks are inky black, the whites absolutely opaque. The result is a most pitiful caricature of a beautiful object.

Specimen blooms of roses, carnations, Shirley poppies, iris, and columbine lend themselves very well to still-life methods. Roses in a jar or vase are very hackneyed. It is far better to arrange a backing of one or other of the "nature mount" papers on a board, and attach the flowers to this by means of either pins or needle-points. In this way great power can be exercised over the grouping. By this it is not meant that the sprays are to be tortured into unnatural positions, but with care a very graceful panel picture can be planned out, which will give the best points of the flowers, with the least chance of the picture being spoiled by a vibrating background.

Those who make a specialty of flower studies will find it an advantage to have the paper pinned over a sheet of cork, which in its turn is nailed securely to a stout board. The pins go into this very easily, and the board behind, by receiving the points, prevents any chance of the weight of a heavy branch tearing the pins out of the soft cork. A great spray of roses is no light weight, and in the case of a heavy branch the pins must be bedded far more deeply than in the case of such light studies as Shirley poppies and wild parsley. A studio stand for the camera is a great help in the case of indoor flower studies. To get the veining perfectly, great care has to be taken with the focusing, and the solid resistance and weight of a rather heavy wood stand is a great comfort. Care must be taken also to arrange the light so that the flowers stand out from the background and do not look

as if pasted flat on the paper. Foxgloves are most difficult to manage, though very effective when well arranged.

In many pictures of roses the first thing that a critic generally notices is the sharp, hard, "china-like" appearance of the petals. A rose is so associated with softness and velvety texture, that the fault is a glaring one. That it is difficult to avoid this hardness, all photographers know very well. The only way to mitigate the defect is to give an exposure of really almost absurd length, and then use such developer as will give a very soft negative. It is no easy task to avoid the Scylla of harshness without falling into the Charybdis of flatness and overexposure; but with a good deal of pains the happy mean is attainable, though many plates will go into the waste-box first.

Isochromatic plates are undoubtedly the best for flower studies, and should preferably be used with a pale-yellow light filter. It must be borne in mind, however, that the medium-speed isochromatic plates are a shade less fast than ordinary ones, and, if at all underexposed, give much harsher negatives than plates which are not sensitized for color. It must, therefore, be decided to give a most generous exposure. Half a minute in a well-lighted room, with f-16 in the lens, is none too much, and in many cases it will be found not half enough.

With the majority of lenses a small stop has to be used to obtain the delicate half-tone and

detail of the flower. The single combination of an R. R. lens gives much softer results than the full combination. Experiments with f-6 on sprays of apple blossoms did not give very successful pictures. The form of the flower and its most shadowy parts must be clearly defined and in focus; it is this necessity of using a small stop that renders an abnormally long exposure desirable, or else the petals will have the "china" look which is so hideous.

In developing, the best way seems to be to flash out the image with a normal developer and check it when all detail is out with either citrate of soda or potash. Bromide has the power of causing the image to become over-dense, a fault that the citrates are free from, so their use is peculiarly desirable in flower work. After the check has been applied the plate is developed with a solution strong in pyro, which gives the requisite substance to the image. If a flower study develops up slowly and gives signs of underexposure, it is best to throw it into the waste-pail, as a forced flower plate is practically worthless.

Different colored flowers require, as a matter of course, widely different exposures. An orange poppy, for example, will need far longer than its fellow of white or pale sulphur color; deep red roses the same. Bell-shaped flowers will require the lens to be heavily stopped down to get all parts in focus, notably the pistils and stamens which lie in the depths of the bell.— *The Queen.*





HARBINGERS OF SPRING  
BY L BIRT BAYNES

PHOTO  
ERA



WHERE MY LILIES GROW  
BY MARION S GAINES



DAISIES WHITE WITH HEARTS ALL GOLD  
BY KATE LEWERS





WINTER IN THE WOODS  
BY JOHN CHISLETT

REVERIE  
BY C RUF



PHOTO  
ERA



BUTTERNUT BLOSSOMS  
BY VERNE MORTON



THE FLOWER OF JAPAN  
BY GEO ALEXANDER

PHOTO  
ERA



PRAIRIE PRIMROSES  
BY PROF F A WAUGH

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The stormy March has come at last,
With wind and cloud and changing skies;
I hear the rushing of the blast
That through the snowy valley flies.
Thou bring'st the hope of those calm skies
And that soft time of sunny showers,
When the wide bloom on earth that lies,
Seems of a brighter world than ours.
— BRYANT.

March Issue The March issue of the PHOTO ERA is largely devoted to floral photography. The bright colors and sweet odors of flowers charm the senses, but it is their æsthetic beauty that specially interests the artist photographer. For him the imitative rendering of flowers in black and white is only a means of further study, not an end. There should be feeling for the natural life of the plant; for in every petal and leaf there is a perfect manifestation of order, symmetry, proportion, unity, and æsthetic beauty. In studying its natural grace of form and seeking to render the ideal, one should get from it the real benefit of floral photography, beyond the mere pleasure of picture making, viz.: motives for ornament and suggestions for

decorative composition. "Flowers," says Dow, "by their great variety of line and proportion are particularly valuable as well as convenient subjects for elementary composition. Their forms and colors have furnished themes for painters and sculptors since the beginning of art, and the treatment has ranged from abstraction to extreme realism; from the refinements of lotus-derived friezes to the poppy and rose wall-papers of the present time."

The flower may be rendered realistically, as in some Japanese designs, or reduced to an abstract suggestion, as in the Greek, "setting its lines into a space in such a way that beauty shall result,—in other words, making it serve as a subject for a composition exercise."

No representation of flowers, therefore, by photography can be wholly successful or artistic unless it comprises these results. And in studying flowers for this motive of ornament, the main purpose and effort must be to reach, through the study and photograph of the flower, its ideal or æsthetic beauty.

The Portrait in Art A writer in the current Scribner's has this to say regarding the portrait in art. Although his remarks are immediately concerned with painting, because they are equally applicable to photography we take pleasure in reproducing them here.

"If the noblest study of mankind is man, the painter of portraits is singularly fortunate in his pursuit. For it is not only his duty to familiarize himself with man in the abstract, but to study him in the concrete,—to know his physical structure and to make such use of the lines and movements, attitudes and gestures of the person he is representing, that they will appeal to those who are acquainted with this person as most characteristic of the particular individual he portrays.

"The portraitist has the advantage of the landscape painter in that the human figure offers all that landscape does of paintable material, plus the human interest, the personal note. Habit of life, temperament, the vicissitudes of existence, all leave their mark on man; and under each of these conditions the individual experiences myriads of emotions, whose marks

it is the province of the portrait painter to detect—not only to detect, but to weigh—so that in his interpretation of a human being a just proportion shall be established; for in the summing up of a personality with a view to perpetuating it by art, that no petty or ignoble trait shall take precedence in the work, is of great significance; the individual has now left the world of daily trifles and has entered, for the time being, the realm of art. His place immediately becomes dignified; he has to exist permanently with the air the painter sees fit to give him. Some one has well said, ‘The highest thing that art can do is to set before you the true image of a noble human being.’ The greatest painters of all time must have thought in this way, for the names of Titian, Tintoretto Raphael, Rembrandt, Velasquez, and Franz Hals come to mind as of those who painted great canvases of other subjects, but who perhaps did no more perfect things than the best of the portraits they have left behind them; while among those who pursued portraiture solely are names the most familiar in the history of painting.”

*Photo Era* We have been discovered again, a *Phenomenon* this time by Childe Bayley, the editor of *Photography* (London), who opens his pages to the reproduction of an article from an American magazine in which the editor of the PHOTO ERA is roasted, metaphorically speaking, for daring to disagree with some of the principles of the Photo Secession. This magazine styles us “an unfortunate phenomenon” in the photographic world. We ask, Why not a phenomenon without any qualifications? If we have succeeded in developing the pictorial side of photography and in making a successful magazine, in a field up to the present more or less limited, why not accord us the credit that is justly due? Because, forsooth, we have ventured to question the wisdom and righteousness of the Photo Secession policy that would exclude nine tenths of the photographic world from public exhibitions in this country, is no reason why we should be made a special object of sympathy, and termed unfortunate. Rather, we should be congratulated upon representing so large and influential a part of the photographic world, in the cause of truth and fair play. It

seems to us peculiarly fortunate that the PHOTO ERA should have arisen just at this time to voice the opinions of photographers generally throughout the United States, as against the opinions of the selfish and self-opinionated few in the Photo Secession. We believe that the true artist in photography to-day is more concerned with making artistic pictures than with what people are going to say about them when they are done. For it is art, and not reputation, that he pursues.

When he exhibits pictures, it is with the hope that they will carry their message of truth and beauty to the souls of those who see them; moreover, he does not study how to prevent others from doing likewise. The Photo Secession would shut the door in the face of every earnest worker who does not subscribe to their creed and acknowledge them as masters. It is the glorification of the individual and not the glorification of art which they represent,—a principle that we believe to be very pernicious in theory and not conducive by any means to the right growth of artistic photography. If to combat this principle and policy is to be “an unfortunate phenomenon,” we glory in the name; in such a cause, it is something to be proud of. We regret the personalities which Mr. Bayley has reproduced in this article against a brother editor; but then, the editor of *Photography* is the same Childe Bayley who declares in cold type and in all seriousness, that the American of to-day is rapidly reverting to the type of the American Indian.

*Photo Era* It has often been stated, and *European Tours* not without cause, that the

PHOTO ERA is the most up-to-date photographic magazine published in the United States. It follows the development of photography along educational and artistic lines. Among the varied forms which this activity takes, the study of art and photography by travel is one of the newer and the most promisingly useful. In conjunction with the Bureau of University Travel there will be organized in Boston by us, during the early summer, a personally conducted photographic tour to Europe. The details of this proposed undertaking will be announced later on more at length.

But, for the moment, we are able to say that the party will be in charge of an experienced and competent photographer whose time and services will be given gratuitously to the members of the party. Furthermore, it is proposed that the one making the finest set of pictures of the trip will be given all his traveling and hotel expenses free. Already a number of photographers have signified their intention of joining the party, which will include a ninety days' trip to France, Switzerland, Italy, the Tyrol, and Germany.

*A New Magazine* Early in April there will be issued from the office of the PHOTO ERA a publication new to American readers, and one which we feel will fill a real want. It will be entitled THE PRACTICAL PHOTOGRAPHER, American Library Series, and will be in the main a reprint of the English periodical of the same name, edited by Rev. F. C. Lambert, one of the foremost authorities of the world on technical and pictorial photography. Additional American matter will be introduced, and the magazine will gradually be made international in both pictorial and technical aspects. The distinguishing feature of this publication will be the devotion of each number to a single subject or department of photography, giving a complete elucidation of the topic, in a series of articles by well-known experts. The reader will thus get, not the experience of one man, but that of many authorities on each subject. Great care is exercised that the articles are not repetitions of each other, while at the same time the various points of view are sure to bring out all that is worthy of attention. The magazine will be profusely illustrated, seventy-seven cuts and diagrams being employed in the first number, which will be devoted to "Mounting and Trimming Prints." A detailed table of contents may be found in our advertising pages. Each number will consist of sixty-four or more pages of text, and many full-page plates. The form is octavo,  $5\frac{1}{2} \times 8\frac{1}{2}$  inches, and the price is twenty-five cents. We hope that every reader of the PHOTO ERA will order this number from his or her dealer, and so assist a new enter-

prise, which marks an epoch in the development of photographic literature.

*The Whistler Show* An event of more than usual significance in art circles is the remarkable exhibit of pictures, oil-paintings, water-colors, and etchings, by James McNeill Whistler, given by the Copley Society of Boston during the month of March. Although Whistler never used photography as a medium, his influence upon the modern world of art, and indirectly upon photography, was by no means inconsiderable. His portrait of his mother, for pose and space arrangement, his portrait of the lady with the muff, and the portrait of the violinist, for lighting and tone values, have influenced the work of many photographers in our day. His supreme value to the world of photography and art came when he had demonstrated that art was not always and necessarily story-telling in detail. His subordination of details in a plane of color, the melting outlines of his pictures, and the utter disregard of the conventional lines of composition, set his work apart from that of others and strongly individualized it. There is poetry, romance, and imagination to be found in nearly all his pictures, and this is why they can be made to serve so well the aspiring student of photography to-day. His work has been defined to be "a seizure of salient points of the subject in hand, gleaming either from the dusky atmosphere of a darkened room or from the light of a scene in the evening." He recorded his appreciation of those delicate differences in color and tone values full of deep significance and feeling. The photographer will find that his portraits are designed simply, but have always a great dignity of line.

As a decorative colorist, Whistler gathered much from Japanese art, while French impressionism has given him a seductive elasticity in the realization of form. It was from Velasquez, however, that he has learned his greatest lessons in portrait-painting, in which branch his earlier picture of Carlyle and the portrait of his mother still remain monumental pieces among the century's work in portraiture.

## Foreign Abstracts

**A Modification in Gum-bichromate** Hugh Allen recommends that to obtain increased gradation in gum prints, the paper be coated with a relatively thick film with smaller amounts of pigment than is usually prescribed. In order to do away with the necessity for frictional development, it is essential that no part of the exposed film be absolutely insoluble. He first sizes the paper to fill the pores thoroughly, using two or three coats of size if necessary. The size is compounded thus: Soak  $1\frac{1}{2}$  drams of good gelatine in 8 ounces of cold water, and allow to swell thoroughly, then melt in hot-water bath. While warm, stir in  $\frac{1}{2}$  dram of glacial acetic acid, then add  $1\frac{1}{2}$  ounces of cold saturated solution of alum. If not clear, filter hot through fine muslin. Apply with a piece of flannel, and allow to dry before second coat.

The gum mixture is compounded:

Take warm water . . . . .	6 drams
Stir in powdered potassium bichromate . .	30 grains
After solution, stir in powdered gum arabic	90 grains

This will dissolve in about fifteen minutes. The amount of pigment is to be kept as low as will render the shadows. For black, 3 grains of vegetable black is enough, and must be rubbed up first with a drop or two of water with a palette-knife or in a mortar, and the gum solution added gradually and rubbed in. For warm brown, 10 grains of a mixture of burnt sienna, 44 grains, and vegetable black, 4 grains, may be used. For coating a 10 x 12 sheet,  $1\frac{1}{2}$  drams will be sufficient. Pin the paper on a board, and coat with a badger brush, brushing first one way and then across. Then let the paper stretch a minute, change the pins, and brush both ways until the coating is fairly even. The thick mixture tends to assume an even surface. Dry quickly, and keep in the dark

under pressure, using within a week or ten days. Print with an actinometer.

To develop, soak in three or four changes of water, to remove most of bichromate, and then float face down, without agitation, until development is complete, which may take from half an hour to twelve hours. Temperature may be raised if necessary. Dry by hanging from one corner. (Amateur Photographer, 1904, 39:150.)

**Alteration of Sodium Sulphite** A. and L. Lumiere and Seyewetz, studying the conservation of anhydrous sodium sulphite in the air, have reached the following conclusions:

1. Anhydrous sulphite of soda, when exposed to the air in thin layers, be the temperature the ordinary or a higher one, undergoes no appreciable alteration, except when the air is moist.

2. Weak solutions of anhydrous sulphite of soda oxidize very rapidly in the air at the ordinary temperature. In solutions of differing strengths, at the end of the same time the relation between the quantity of sulphite oxidized and the total quantity dissolved decreases in proportion as the concentration of the solution increases.

3. Concentrated solutions of a strength greater than twenty per cent oxidize very little, even if they are kept in an uncorked bottle, and a large surface is exposed to the air. *It is therefore advantageous, if one desires to keep sulphite in solution, to use very strong solutions.*

4. At their boiling temperature, solutions of anhydrous sulphite of soda oxidize the more rapidly as they are more dilute. One can boil solutions stronger than twenty per cent in the air without their altering sensibly. (Bull. assoc. belge Phot., 1904: 87.)



YARROW AND GOLDENROD  
BY L BIRT BAYNES

PHOTO  
ERA



PORTRAIT  
BY DR V SPITZER



THE PARK IN WINTER  
BY GEO W FRAPRIE



APPLE BLOSSOMS  
BY JAMES E TAGGART

# The Round Robin Guild

Specially designed for the Amateur Photographer and the Beginner

Conducted by Elizabeth Flint Wade

(Any amateur photographer may belong by sending in his name and address)

It used to be quite the proper thing to read the preface or foreword to a book, and the titles and subtitles—often voluminous—to an article. One read the preface because it was the author's personal message to his reader, and one read the titles and explanations of the titles in order to know how the author was going to treat his subject. But this custom, together with many other good old customs, has passed away. Its passing accounts for this question which comes so very often to the Editor, "What are the conditions of membership in your club?"

Each month our department appears with its explanatory message at the top. It states that the department is for the amateur and for the beginner, and that any amateur may become a member by sending in his or her name and address.

But there are, of course, some who have heard of the Guild and have not seen the department, and who wish to know about the organization. All such inquiries are answered through our circulars, which are mailed to all inquirers.

The PHOTO ERA devotes a certain number of its pages and extends certain privileges to the amateur without exacting any fee, or even asking him to become a subscriber to the magazine. The Guild was established specially to help the beginner over the difficulties which are sure to beset him in the outset of his photographic career, and by suggestions and counsel assist the amateur to attain the best results with the camera.

A motto of the Guild is that one cannot cultivate too highly the passion for excellence. Never to be satisfied with one's achievements is the true way to success. "A man's reach should exceed his grasp," says Browning; so to progress we must always reach out toward the yet unattained.

We have many members in the Guild,—we want many more; so we ask those who are members to pass the word along the line to those of their amateur friends who have not heard of the Guild but who would be benefited by becoming members.

Then, too, we would like our members to remember among the privileges of the Club, the "Idea Exchange." If one has learned an easier way to do a thing, some special formula of unusual qualities, or anything that would be helpful to his fellow-worker, to write out the suggestion,—briefly, of course,—and mail it to the department. There are always different ways of doing things. A little boy of four was kneeling by his bed, repeating his evening prayer. A cousin of the same

age peeped in at the door, and seeing the act of devotion exclaimed, "I don't say my prayers that way. I get into bed to say mine!"

Now, if you have a better or an easier way of doing things, take the time to tell about it, and let your fellow-workers have the benefit of your experience.

## TRIED AND PROVED FORMULAS

Nearly every amateur has some favorite formula or some special way of pursuing his art, and as a rule most of them are willing to share their knowledge with their fellow-craftsmen. Our Idea Exchange has brought to us many formulas, suggestions, etc., from members of the Guild. This month we publish a number of formulas, and next month we shall give a space to suggestions for work. In connection with the exchange we hope other members of the Guild will send to their associates, through the PHOTO ERA, anything which they have found of special benefit in their work, that we may publish it in the Guild department.

Professor Bishop of the State Normal School, Buffalo, is a very successful lantern-slide maker, and makes a great many slides not only for use in his own work, but slides of artistic subjects as well. His slides are remarkable for their delicacy of detail, and for the soft contrasts of light and shadows. The harsh blacks and whites seen in many slides and which are so trying to the eyes when thrown on the screen, do not appear in the slides made by the Professor. His developing agents are eikonogen and hydrochinon, and the formula is as follows: Solution A. Distilled water, 32 oz.; sulphite of soda crystals, 4 oz.; eikonogen, 160 grains; hydrochinon, 330 grains. Solution B. Water (distilled), 32 oz.; carbonate of soda crystals, 2 oz.; carbonate of potash, 2 oz. To use, take 1 oz. of solution A, 3-4 oz. of solution B, and 4 oz. of water. Develop until detail is well out in the shadows, but do not force development too far.

A correspondent sends a formula for developing and fixing plates in the one solution. Ortol is the active agent, and the process is as follows: No. 1. Water, 6 oz.; potassium metabisulphite, 20 grains; ortol, 40 grains. No. 2. Water, 16 oz.; caustic soda, 60 grains; potassium bromide, 60 grains. No. 3. Water, 20 oz.; hyposulphite of soda, 1 oz.

Our correspondent writes that this developer succeeds best with a plate that develops quickly and which requires a restrainer. This method of developing is an

interesting experiment, but not to be commended for general use.

R. E. Frick, referring to the formula given for a pyrometol developer, published recently in this department, sends one which he says he uses with great success. He prepares three solutions, the first being: Water, 16 oz.; metol, 36 grains; sulphite of soda crystals, 720 grains; pyro, 44 grains; bromide of potassium, 8 grains; citric acid, 43 grains. The second solution is: Water, 16 oz.; carbonate of potassium, 2 oz. The third solution is made the same as the first, with the exception that the bromide of potassium and citric acid are omitted. If a strong negative is desired, the directions are to take an ounce of the first and second solutions and add one ounce of water; but if a soft negative is desired, then take the same proportions of the second and third solutions.

A member of the Guild writes that having tried diphenal for overexposed plates, she keeps a bottle of the solution ready for use. For development the proportions used are: Water, 1 oz.; diphenal, 1 oz. The plate is developed until the high lights are sufficiently dense, then the plate is fixed and washed. The length of time required for development is quite ten minutes, the developer working rather slowly.

#### DEVELOPERS

About twelve or fifteen years ago several new developing agents were introduced under the specific names of metol, amidol, rodinal, etc., and later others bearing the names of diogen, diphenal, ortol, metacarbol, imogen, and similar terms made their appearance. Of all these new agents, metol has perhaps been the most popular. Its manufacturer, Hauff, says that metol is the sulphate of methyl-para-amido-meta-cresol. It comes in the form of a whitish powder easily soluble in water, and when mixed with alkaline sulphites in solution will remain colorless for months at a time. Combined with hydrochinon, metol makes a developer which is only equaled by pyro in its action; and when combined with pyro it makes a developer slow in action, easy to control, and one which allows great latitude of development. With soda or potash, metol is a fine developer for paper, both for gaslight papers and to bring out the image on a printing-out paper. A faint impression made by the sun on a printing-out paper may be developed with metol into a strong image. This is a decided advantage when days are dull and printing lags.

Amidol is one of the diamidophenol developers introduced by Hauff. Mixed with neutral sulphite of soda, it makes a very energetic developer, bringing out detail in underexposed plates and giving good density. It brings out the image rapidly, and the plate must be left some few minutes in the bath in order to give density, as it loses in the fixing-bath. Amidol is an ideal developer for bromide paper, as it gives the rich blue-blacks so much desired.

Rodinal is a developer of wide latitude, and is a concentrated solution of paramidophenol. It is claimed for rodinal that it is adapted to the development of any plate or any exposure by the adding of more or less water to the concentrated solution. When diluted with water in the proportion of one part of rodinal to twenty of water, the image develops quickly and produces strong contrasts. When much more diluted,—say, with from thirty to forty parts of water to one of rodinal,—the development is slower, and softer contrasts are obtained.

If a plate has been overexposed, it is treated to a rather strong bath of rodinal,—say, one part rodinal to fifteen of water,—to which is added a considerable quantity of a ten per cent solution of bromide of potassium. This treatment of an overexposed plate will give a negative full of detail and rich in contrasts. If a plate is underexposed, the treatment is reversed, the solution being much diluted and the bromide of potassium omitted. The development lasts some time, but there is little, if any, danger of fogging. After the detail has begun to show, the tray may be covered and the image left to develop, an occasional rocking of the tray being all that is necessary. Negatives made in strong light are better if developed in a weak solution of rodinal; while those made in diffused light, or when the weather is cloudy, are developed in a stronger solution, to which bromide of potassium is added. Rodinal gives a negative of clean, clear printing quality, and with fine gradations of lights and shadows.

Diogen is a developer with similar qualities to rodinal, and is commended for underexposed plates, as the makers claim that the exposure, even if much under-timed, may be brought out well with diogen. Diphenal, on the other hand, is recommended for overexposed plates, as it gives clean negatives and has no propensity for fogging, even when the plate is left for an extended time in the solution.

Adurol is another of the Hauff developers, and has the best keeping qualities of almost any of the developers on the market. Developer which has been used will stand a long time without becoming discolored (oxidized) or losing its developing powers. This is an excellent developer for portrait work, and is specially adapted to the development of contact prints and of enlargements. The tones of the print developed in adurol range from gray to deep blacks, while the whites are clear and pure.

Glycin is a developing agent obtained by the action of chloracetic acid on amidophenol, and produces images of a gray-black color, with clear shadows, and is specially suitable for photo-mechanical processes. It is a very powerful developer, and when combined with soda gives negatives free from fog or stain and with wonderful clearness in the shadows.

All organic developers have a close chemical resemblance to each other, having for their base phenol (carbolic acid), a derivative of benzol. To illustrate:

Carbolic acid is expressed in chemical shorthand thus:  $C_6H_6O$ . This signifies that an atom of carbolic acid or phenol is composed of six parts of carbon, six parts of hydrogen, and one part of oxygen. The chemical shorthand for pyrogallol is  $C_6H_6O_3$ , and for hydrochinon is  $C_6H_6O_2$ , showing that an atom of pyrogallol contains the same amount of carbon and hydrogen as does the phenol and the hydrochinon, but it contains three times as much oxygen as the phenol, and a third more than the hydrochinon.

It is rather a difficult matter to pass judgment on the different developing agents. One developer suits one worker, another developer is preferred by his neighbor; but no matter what developer is chosen, it must be used as the painter said he used his colors, — “with brains.”

ANSWERS TO CORRESPONDENTS

B. Martin.—Use non-halation plates for interiors where windows are to be included in the angle of the lens. Non-halation plates require nearly twice the length of exposure as the ordinary sensitive plates. It does not pay to back one's plates, for it is difficult to apply the coating evenly; then there is the trouble of drying and repacking the plates, and one is liable to have fogged plates from their overexposure to light, before actual use.

K. G. G.—You will find directions for making

bromide enlargements in the February number, 1902, of the PHOTO ERA. You do not need a special lens. Any lens that will make a picture will make an enlargement. The number containing the article will be sent you on receipt of price.

M. G. G.—A rapid rectilinear lens is quite necessary if you wish to devote yourself to architectural photography. The tilting of the camera, if the swing-back is not adjusted properly, will result in distortion.

Rupert M.—It would be a great pleasure to see some of your marines, especially if they are as good as the print enclosed.

Emma G. Gray.—No; do not use the glossy paper for your prints. The matt surface papers are much more artistic, the details coming out in some papers as well as in the glossy papers. We prefer not to specify any particular paper, but in our advertising pages you will find names of several excellent brands.

F. Howard.—The greenish blacks in your gaslight prints are due to the fact that you used too much restrainer in the developer. A 10 per cent solution of bromide of potassium is a very useful adjunct to one's stock of photographic solutions. A few drops added to the developing solution when developing gaslight prints, insure clear blacks and whites, but an excess causes greenish blacks.

PHOTOGRAPHIC EXHIBITIONS AND COMPETITIONS

SOCIETY OR TITLE	DATE	ENTRIES CLOSE	INQUIRE OF
Exposition Internationale de Photochromic.....	Feb. 15-Mar. 15	Nov. 15	M. le Prés. du Comité, 44 Rue des Mathurins, Paris, France.
South London P. S. ....	Mar. 5	Feb. 20	W. C. Marshall, 41 Glendon Road, Lee, S. E., England.
Nottingham Camera Club.....	Mar. 9-12	.....	Arthur Black, 9 Bowers Ave., Nottingham, Eng.
Akron Salon .....	Mar.	Mar. 21	Charles E. Smith, Akron, O.
Brentford P. S. ....	Mar. 15	Mar. 3	F. H. Read, Clifden Road, Brentford, Eng.
South Norwood P. S.....	Mar. 24	Mar. 12	C. R. Beckett, 28 Carmichael Road, South Norwood, S.E. Eng.
Northern Exhibition.....	Mar. 25-Apr. 9	Mar. 11	C. F. Inston, 25 South John Street, Liverpool, Eng.
Toronto Salon .....	Mar. 29-Apr. 2	.....	Hugh Neilson, Toronto, Canada.
Cape Town Photographic Salon.....	Apr. 4	Mar. 13	A. S. Fuller, P. O. Box 470, Cape Town, South Africa.
Croydon Camera Club .....	Apr. 6-13	.....	C. V. King, Hurst Bank, Selsdon Road, Sanderstead, Eng.
Chiswick Camera Club.....	April 23	Apr. 11	Herbert Gentry, 39 Fairfax Road, Chiswick, Eng.
Salon de l'Exposition, Arras .....	May 1-Oct. 4	Apr. 5	Comité de l'Exposition, Arras, France.
Louisiana Purchase Exposition.....	May-Nov.	Apr. 1	John A. Ockerson, Chief, Dept. Liberal Arts, St. Louis.
First International Salon in The Hague .....	June 12-July 24	June 1	Sekretariat Haag, Conradskade 63, The Hague, Netherlands.
First American Photographic Salon, New York..	Dec., 1904	.....	S. C. Bullenkamp, 102 West 101st St., New York.
Northern Photographic Exhibition .....	June-July, 1905	.....	F. G. Issott, 62 Compton Road, Harehills, Leeds, Eng.

GIVER	CLOSES	PRIZES
Kodak N. C. Film Competition.....	June 10	£500—209 prizes.
Kodoid Plate Competition.....	June 10	£300—99 “
Kodak Developing Machine Competition .....	June 10	£200—96 “
Photo-American, Stamford, Conn. ....	July 1	\$5 in goods
Photogram, Arundel St., Strand, London.....	Monthly	One guinea and half guinea.
The American Boy, Detroit.....	Monthly	\$2, \$1.
National Sportsman, Boston.....	Monthly	\$5, \$3, \$1, \$1.
Browning's Magazine, Boston .....	Monthly	\$5, \$3, \$2.
The Book-Lover, New York.....	Monthly	\$5, \$3, \$2, \$1.
Leslie's Weekly, New York.....	Weekly	\$10, \$5, \$1.
Buffalo Express.....	“	\$5 to \$25.
New York Evening Mail .....	“	\$5.
Commercial Advertiser, New York .....	“	\$5, \$3, \$2, \$1.
San Francisco Chronicle.....	“	\$5, \$3, \$1, \$1.
St. Louis Star.....	“	\$5.

## Notes and News

WEST GROVE, The picture of the spotted canna which  
PA. we reproduce in this issue, is from a  
negative made by the well-known flower  
photographer, Mr. J. Horace McFarland, on the prem-  
ises of the Conard & Jones Co., West Grove, Pa., to  
whose courtesy we are indebted for permission to re-  
produce the print. This is one of the many beautiful  
novelties introduced by this firm, who will be glad to  
send a catalogue on mention of the PHOTO ERA.

BOSTON, Mr. F. Holland Day held an informal exhibi-  
MASS. tion of his photographs at his studio on  
Irvington Street, on Thursday and Friday  
afternoons in February. The pictures exhibited were  
mostly a series of head studies, a branch of work in  
which he is much interested at present.

KNOXVILLE, We regret having to announce the death  
TENN. of Charles Knafl, a member of the well-  
known firm of Knafl & Brother. Mr.  
Knafl died on February 19, at Hot Springs, Ark.,  
whither he had gone for the restoration of failing health.  
The funeral services were solemnized at Knoxville on  
February 22.

BIRMINGHAM, We have received from W. Tylar, 41 High  
ENG. Street, Ashton, Birmingham, England, a  
small book which serves the double  
purpose of advertising Mr. Tylar's business and im-  
parting some useful scraps of photographic information.  
It is entitled "The Art of Photographic Dodging," and  
contains many ways of improving the print, and a num-  
ber of miscellaneous practical pointers. Besides, there  
is a large collection of photographic maxims, technical  
and otherwise, of which we will quote only one, as bear-  
ing on flower photography: "When photographing Lily,  
never mind the tulips." The book will be sent on  
receipt of eight cents in stamps.

HARRISBURG, The Eighth Annual Convention of the  
PA. Photographers' Association of Pennsyl-  
vania will be held in Armory Hall, North  
Second Street, Harrisburg, May 24, 25, and 26, 1904.  
The Executive Committee has decided to do away with  
the prize system, thereby falling in line with most of the  
other associations. Certificates will be given for all  
accepted exhibits from members of the Association.  
The Slater Trophy, a silver loving-cup, will be awarded  
for the second time on the same conditions as last year.  
This must be won three times to insure permanent pos-  
session. Mr. W. P. Buchanan offers a \$50 gold medal  
for the best flashlight picture made with Luxo. A

special class for photographers belonging to other state  
Associations is provided. Information may be had  
from the Secretary, Chas. R. Gates, Lebanon, Pa.

ROCHESTER, The Rochester Optical Co. sends us an  
N. Y. early copy of their new catalogue, which  
is most attractively gotten up, internally  
and externally, and will be deemed worthy of preserva-  
tion as a model catalogue. The various types of  
Premos are fully described, both the old favorites and  
several new ones, among which we note the Premo Fold-  
ing Film Camera, No. 1, 3 1-4 x 5 1-2, post-card size;  
Premo Folding Film Camera, No. 2, 3 1-4 x 4 1-4;  
Pocket Premo C, 3 1-4 x 4 1-4; Pony Premo, No. 1,  
4 x 5; Pony Premo, No. 2, 5 x 7; Pony Premo, No. 3,  
5 x 7. The entire line of Pony Premos has been im-  
proved by the addition of new automatic shutters, and  
in various other ways. The Premo Cameras are dis-  
tinguished by the possession of various patented im-  
provements wholly owned and controlled by the com-  
pany. Among these are the Premo Center Swing-back,  
which is optically correct, and does not change the  
focus; the Premo Triple Extension Bed, which is made  
entirely of metal, and is worked and locked by a single  
pinion; the Automatic Standard Clamp, an automatic  
locking device for fastening the standard to the bed;  
the Automatic Bridge, making a continuous runway for  
the camera front; the Universal Bed Stop, and the Re-  
versible Back Fastener. All Premo Cameras can be  
used as film cameras by the use of the Premo Film  
Pack, which enables non-curling isochromatic, daylight-  
loading films to be used interchangeably with plates,  
and gives the advantage of a plate camera with a de-  
cided saving in weight. The catalogue may be had at  
all dealers, or free by mail.

BOSTON, Mr. Wilfred A. French lectured before the  
MASS. Lens and Brush Club on the twelfth of Feb-  
ruary, on "Modern Paintings and Statuary,"  
showing a fine collection of photographs secured during  
his recent trip to Europe.

PROVIDENCE, The collection of photographs to be sent  
R. I. to the St. Louis Exposition by the  
Rhode Island Photographic Association  
was on view for a week early in March at the Rhode  
Island School of Design. All the prominent photog-  
raphers of the State, both amateur and professional,  
were represented, and the exhibit was a very creditable  
one.





BY HUGO HENNEBERG  
VIENNA

PHOTO  
ERA

# PHOTO ERA

## The American Journal of Photography

VOLUME XII

APRIL, 1904

NUMBER 4

### April

April is here !  
Listen, a bluebird is carolling near !  
Earth has been sleeping, and now she wakes,  
And the kind sky-mother bends and takes  
The laughing thing in her warm embrace,  
And scatters her kisses o'er its face ;  
And every kiss will grow into a flower,  
To brighten with beauty a coming hour.

—Rexford.

## Cloud Formations and Photography

JOHN BOYD

THE artistic photographer should have always at his service a series of cloud negatives wherewith to complete his sea and landscape compositions. If he is wise, and would imitate Nature, he will have taken a special plate of clouds with each of his favorite studies. To print in clouds indiscriminately in a picture where none were visible at the time the landscape or other subject was made, is an evidence that we do not appreciate the truth as told in the heavens. It is not good taste, moreover, to print a heavy mass of rain-clouds in a dry August scene, or fit a cloud negative made in the morning to a view made in the middle of the day. It is also poor judgment to fit clouds into landscapes or other views made with lenses of different focal length. Nothing looks more out of place than a big bank of rain or cumulus clouds fitted to a tiny bit of sky in a view made with a lens of half the focal length of that used for the cloud negative.

To do any of these things is to invite criticism from those whose knowledge of art is indispu-

table, and to whom "faking" or "doctoring" is as plainly readable as an open book.

To get beyond any petty makeshifts, and let Nature help us tell her own story, ought to be the ambition of every camerist ; but in order to comprehend what is possible in cloud photography, we should first study the clouds themselves.

The cloud of the upper region is called the "cirrus." It is apparently stationary, and usually forms in long fibrous lines of vapor, heaviest in the middle, and tapering off at each end to a traceless film, which is imperceptibly lost in the blue ether. These usually form lengthwise in the direction of the wind, and very often end in swinging plumes, which are commonly known as "mare's-tails." At other times they are broken up by the force of the wind, and scattered into small roundish patches, which go by the name of "mackerel sky."

These will be found to be the most actinic by the photographer. They receive the light of the sun in greater intensity than those of lower

origin, the beams being transmitted through air untainted by smoke, mists, or other earthly emanations. They have a special beauty in the quietness they impart to any scene in which they appear, but should never be used when picturing a small section of sky. Their form implies a great elevation and a broad expanse of view, and in conditions other than these they will be out of place.

Nearer to the earth lies another class of clouds of a greater variety of forms, called the "cumulus." They are ever in motion, sometimes forming to give us warning of a coming storm, and again placating us with the promise of fine weather, as indicated by the upper cirri. They are most often seen on a summer morning. If they scatter or diminish during the day, it is taken as a token of fine weather; but if they increase and become topped by the cirri, they indicate a coming storm. The special characteristic appearance of the clouds of this central region is a collection of white, ragged, irregular, and scattered forms which often gather into masses resembling huge mountains of wool ready at any time to drop to earth. Being shaded with gray, or even a darker hue, they are readily impressed on the plate in their true gradations, and fit in well with a restless sea, or a landscape with nearby mountains outlined against the sky. These clouds were much used by some of the old painters. In many pictures the same effect can be gotten photographically by the skilled camerist with bunches of cotton-wool laid upon the sky section of a thin negative.

The lower clouds are the nimbus, or rain-clouds; and we find more use can be made of these when taken in conjunction with the central cumulus, than of any of the other ethereal forms.

There are other general combinations, such as the cirro-cumulus, cirro-nimbus, and cumulo-nimbus. These, as their names imply, are phases of both forms blended one into the other. In fact we can sometimes perceive the transition of a cirrus into a cumulus without being able to describe the change, and again a cumulus will settle down into a nimbus and disappear in rain.

Nimbus clouds during a thunderstorm are said often to be eight miles thick, composed of various

strata of damp, moist vapor, frozen rain, and snow. This condition calls for the fullest exposure given to any of the clouds; but as they fortunately are often outlined with more actinic tints, we do not need to fear their blackness.

While Nature is constantly beautiful, she does not always exhibit these charms, for then they would pall upon us and we would not appreciate them. Let us, therefore, keep on the watch for her most perfect phases, and catch them before they evanescently fade away. We should be ready to arrest these combinations as they come into view, and thus let the world see that we know what is beautiful, and can appreciate any examples of typical forms that appear in the skies.

As stated before, if we are to picture these aerial vapors successfully, we must clearly realize what constitutes a perfect combination; and while it is not to be supposed that any are ever duplicated, the general conditions are what must guide us in our efforts. John Ruskin defines the possibilities in this way: "The upper clouds are distinct and comparatively opaque, they do not modify, but conceal; but through the rain-cloud, and its accessory phenomena, all that is beautiful can be made manifest, and all that is hurtful concealed; what is paltry may be made to look vast, and what is ponderous, aerial; mystery may be obtained without obscurity, and decoration without disguise."

These are wise words, and while written specifically for the painter, are equally as applicable to the photographer as any additional details we might choose to give.

There are two essential requisites in the dry plate that will best serve us in cloud work, viz: orthochromatism and freedom from halation. One of the medium speeds of any of the well-known brands will give us nearer what we seek than a faster one, and in many instances a ray screen adapted to the plate we are using will not only assist, but is a necessity. The exposure is very short, about one-tenth the time given to an ordinary landscape being sufficient for clouds. The luminosity ratios between the cirrus and the nimbus will be as 1 to 5. A few examples will give a starting-point to the beginner, using a medium isochromatic plate and stop U. S. 64.

December; 10 A.M.; light, fleecy cirrus; 1-8 second.  
 December; 10 A.M.; dull, dark nimbus; 1-2 second.  
 May; 4 P.M.; dull, dark nimbus; 1-4 second.  
 May; 4 P.M.; light, fleecy cirrus; 1-15 second.  
 July; 11 A.M.; gray cumulus; 1-10 second.  
 October; 5 P.M.; thunder-clouds; 1 second.

The development should be carried only far enough to give true form to the high lights, taking care at the same time that the shadows

are not veiled. By this, one will obtain a quick printing negative, which is a necessary qualification.

The methods of using cloud negatives have been often explained, and it seems unnecessary to go over them again. We do not think, however, when the reader has secured his aerial effects that he will experience any difficulty in joining them suitably to his mundane scenes.

## Artistic Photography in Germany

WE present our readers this month with a selection of pictures which show some of the recent achievements of leading German photographers. Germany is the home of the chemical industry of the world, and most of the materials which are used in photographic chemistry are made in the manufacturing of that country. The price of all photographic materials is very low, and the quality is high. In consequence the number of users, both amateur and professional, is very great. The artistic quality of the work produced is, however, on the whole, not very high. This is due mainly to the fact that the average German photographer goes in for records of fact, and does not have high artistic ideals. The professional photographer, in most cases, has rather hard work to get a living, and his patrons are not willing to pay high prices. There are, however, in the large cities of Germany, and in many of the smaller places which are capitals of small states, earnest and talented photographers who turn out first-class work. Within recent years, also, a school of German photography has sprung up, which produces works of the highest artistic quality. The German artist-photographer of the present day is addicted to large pictures and broad effects, and the favorite mediums are carbon and gum-bichromate. Among the most talented of the workers in gum is Hugo Henneberg, of Vienna, one of whose best landscapes is our frontispiece this month. This is a very striking example of the results which can be obtained by skilful

combination-printing in gum. The composition is masterly, and the treatment of the sky very effective. As an example of combination printing, it is worthy of Horsley Hinton himself.

The landscape by Bruno Wiehr is quite opposite in character from Henneberg's, but not less attractive. The beauty of this picture is due in a large measure to the skilful treatment of the flower-strewn meadow which forms the foreground. The trees receding along the road in the middle distance give an admirable rendition of remoteness, and the picture hardly suffers from the baldness of the sky.

The portrait of Prof. Ostwald, the inventor of the catatype, is by Nicola Perscheid, of Leipzig, court photographer to the King of Saxony. Perscheid is a man of genius, and is perhaps the best professional photographer of Germany, although some might be inclined to dispute this statement. In any case Prof. Ostwald's portrait is a masterpiece. The pose is unstudied and characteristic. The scale of tones is admirable, and the rendition of textures is perfect, while not obtrusively sharp.

The portrait of the opposite page shows clearly the influence of Whistler, which is often apparent in Perscheid's work. The pose here is graceful, and the treatment of the hands is very pleasing; it might have been better to render the gloves in a key not quite so strong as that of the face and neckwear, but the fault is not a great one.

The following portrait by the same artist again shows the Whistleresque treatment of fig-

ure and accessories, including the framed picture on the wall which Whistler has so often included.

The next picture, from a gum print, is a very artistic placing of a figure in a landscape, successful in this respect, and also in the happy choice of subject.

Otto Erhardt's figure study shows very pleasing and simple arrangement of lines, and is a wholly successful treatment of the nude.

The landscape by Hans Watzek, of Vienna, while not representative of the photographer's best work, is a pleasing massing as a landscape.

Turning the page, we find two more examples by Perscheid. The first, a portrait of a man smoking, shows a strong face strongly treated, and gives one a vivid feeling of the character of the individual portrayed. Here, as usual, the hands are extremely well treated. Facing it we have a pleasing picture of childhood, which will appeal to all tastes.

The group of birches, by Raupp, of Dresden, is very pleasing in composition, and may be regarded as a good sample of the photographer's landscape work, although less pretentious than much that he has done. Perscheid's family group opposite is a good handling of a subject rather difficult to treat successfully.

"The Mower" is a daring and unconventional treatment of the subject. The subordination of the landscape to the huge figure in the foreground, although it carries out the lines of the pyramidal composition, is perhaps even too daring, diminishing the church and the surrounding trees to the aspect of a toy village; but no fault can be found with the figure, or with the treatment of the landscape as such.

In the group of swans we have, again, a perfectly unconventional picture, which is, however, very pleasing. It is certainly a markedly successful portrayal of a difficult subject.

The portrait of Dr. L. Wuellner again shows Perscheid at his best. He seems to excel in the portraiture of men. This portrait reminds one of a Sargent, or, except for the modern attire, of a Franz Hals, and is a masterly rendition of character. The position of the hands is again extremely commendable, and the whole series of portraits is full of lessons in this respect.

The portrait of a woman on the opposite page is a charming pose, and an excellent treatment of the subject.

On the following page we have another example of a large human figure in the immediate foreground, although not in the exaggerated proportions of "The Mower." Here, again, Perscheid shows his unconventionality, in representing the shepherd as followed by his flock instead of driving it. The action on the right of the picture, where the sheep are seen pressing forward in a tumultuous mass, is extremely good, and proves the picture to be unposed, and the happy seizing of a psychological moment.

In choosing Perscheid as a representative of the best school of German photography we have taken a man who goes to neither extreme in the matter of sharpness. In fact it would be difficult to find in Germany, in France, or even in England, a photographer who goes to the extremes consistently adopted by a number of those who claim to lead pictorial photography in America. The great photographers of all the European countries, while they show the difference between planes by means of more or less diffusion of focus, invariably represent the principal objects as seen by a normal human eye.

This sanity of expression in Germany is due to the national quality of straightforwardness, and is inherent in the German race. A striking instance of this is shown by the famous Steichen incident. Dr. Ernst Juhl, at that time artistic editor of an important German magazine, a year or so ago reproduced a collection of American photographs by Steichen, Mrs. Kasebier, and other extreme Photo Secessionists. Within two weeks after the publication of the pictures more than half of the subscribers ordered their magazine discontinued, and Dr. Juhl, in consequence, resigned from his editorship. The animosity of his opponents went so far that they unsuccessfully endeavored to cause his removal from the editorship of another magazine, which he soon afterward accepted, and his influence as an artistic leader was seriously diminished by the incident. These opponents of his invented for the objectionable American work the expressive word "Kunstekel," — a term which can be only approximately translated as "art nausea."



BY BRUNO WIEHR  
DRESDEN

PHOTO  
ERA



BY NICOLA PERSCHIED  
LEIPZIG

PHOTO  
ERA



BY NICOLA PERSCHEID  
LEIPZIG





BY NICOLA PERSCHEID  
LEIPZIG

PHOTO  
ERA

# Substances Which Develop Without Alkali

A. AND L. LUMIÈRE AND A. SEYEWETZ

THE property possessed by certain substances of developing the latent image in the absence of alkali has been observed in such a small number of cases that the relation existing between this property and the constitution of the substances which possess it could not until now be established with a sufficient degree of precision.

In a preliminary study, published about ten years ago, we thought it possible to conclude that the only substances capable of developing without alkali were those containing the developing function twice. Since then we have found that certain substances containing this function only once may also be endowed with the same property.

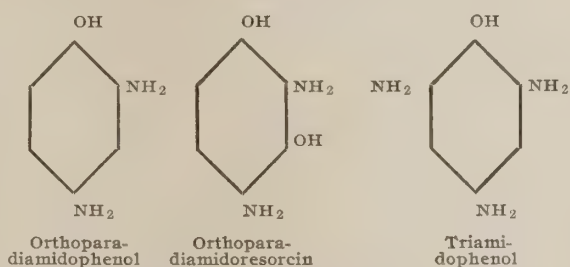
In the present study we have tried to find out which substances can develop in a simple solution of sodium sulphite, and also examined the conditions fulfilled in this case by the developing function.

We first experimented with substances containing only one developing function. It is known that this function is due to the fact that in an aromatic ring two atoms of hydrogen in para or in ortho position are replaced either by two OH groups, two  $\text{NH}_2$  groups, or one OH and one  $\text{NH}_2$  group. When the developing function is due only to OH groups, the development does not seem to take place except in the presence of alkalies. Such is the case with hydrochinon and pyrocatechin. But when the reducer contains one or two  $\text{NH}_2$  groups, the development can take place without alkalies in an aqueous solution. To this class belong ortho- and paramidophenol, para- and orthophenylenediamine and orthotoluyldiamine.

When alkyl groups are substituted in the amido group, the developing property is not altered. So methylparamidophenol (metol) and dimethylparaphenylenediamine can develop without addition of alkali. On the contrary, the developing energy is considerably reduced when an acid group is substituted for the amido group, as is the case with glycine  $\text{C}_6\text{H}_4\cdot\text{OH}\cdot\text{NH}\cdot\text{CH}_2\cdot$

$\text{COOH}$ . When a substance contains the developing function twice, and when this function is due only to OH groups, it has been found that the development can take place without alkali, but is then so slow that it could not be used practically. Such is the case with pyrogalllic acid and oxyhydrochinon. These substances in a solution of sodium sulphite have a reducing power much weaker than the reducers possessing only one developing function but containing one amido group. When beside the OH groups some amido groups are to be found in the ring, the developing power appears with an activity notably greater than when only one developing function exists.

To this class of substances belong



These substances are utilized in the form of chlorides; but as soon as they are put in presence of sodium sulphite the base is liberated with formation of chloride and bisulphite of sodium, so that it is the base which acts as reducer, as is the case with reducers containing only one developing function. Their energy is such that they can be utilized practically in a sodium sulphite solution. An increase in the number of amido groups in the same ring seems to intensify the developing power. So the triamidophenol has a greater reducing action than the diamidophenol. However, it cannot be practically utilized, for the oxidation product which is formed during development has a tendency to produce an inverse reaction.

We have found that some other substances possess the property of developing the latent image without alkali. They are combinations of a reducer possessing an acid function with a reducer possessing a basic function. Metochinon

(a combination of metol and hydrochinon) is the prototype of this series. However, various combinations can take place:

1. The combination of a developer possessing a phenol function with a basic or developing substance.

2. The combination of a developer possessing an amido group with a non-developing substance possessing a phenol function.

3. The combination of a developer possessing a phenol function with a developer possessing an amido group.

In the first class we have experimented with various phenol derivatives, such as hydrochinon, pyrocatechin, pyrogalllic acid, containing one or two developing functions combined with aromatic bases, such as aniline, toluidine, chinolin, and found that none of them could be practically utilized for developing without alkali.

In the second class we have tried various combinations of paraphenylendiamine with phenolic but non-developing substances, such as phenol, resorcin, orcin. All these compounds develop the latent image too slowly to be practically utilized without alkali.

Finally, all the compounds of the third class we have tried develop the latent image without alkali, and when they are sufficiently soluble in solutions of sodium sulphite, they can always be practically used. The reducing power of these various developers seems to be weaker than that of compounds possessing two developing functions, as amidol. On the other hand, their power can be greatly increased by the addition of carbonates or even caustic alkalies, and this property can be practically used, while this is

not possible with a developer whose constitution is similar to diamidophenol.

#### CONCLUSIONS

The preceding study allows us to draw the following conclusions:

1. In order to be able to develop the latent image without alkali, a substance must be sufficiently soluble in sodium sulphite, and must possess one amido group in the developing function. This amido group may be substituted, provided the basic character of the amido group is not destroyed.

2. When the substance possesses only one developing function, or if it possesses two but without an amido group, the developing power is too weak to be practically utilized without alkali.

3. When two amido groups are present in a substance possessing two developing functions, the developing power is greatly increased, and can then be utilized practically without alkali.

4. The reducing power is also increased, but not so strongly as in the preceding case, when the basic function or functions of the reducer are united with the hydroxyl group of a phenol itself possessing a reducing function.

5. The combination of the basic functions of a reducer with the hydroxyl groups of a compound possessing no reducing function, or the combination of a phenol possessing the reducing function with an amido compound possessing none, does not furnish in any case a compound susceptible of being practically used as a reducer without addition of alkali.

## On Using Kodoid Plates

C. F. CLARKE

I HAVE been using Kodoid Plates ever since they have been on the market, and am very much pleased with the results. I think they are far superior to plates, orthochromatic or otherwise, for landscape work, as I am able to get a wealth of detail that seems almost

impossible with a plate, getting the full value of all half-tones, depth, etc., without a trace of halation.

To be sure, they are not quite as easily handled in developing as plates; but after all, results are what we are all looking for, and if we can

reproduce on the negative the picture that we want, is it not worth our while to use a little more care and take a little more trouble?

My method of handling is as follows: To develop, I use Hauff's ortol tubes, one part A, one part B, and four parts water. After removing from the plate-holder and before developing, I remove the film from the card back by detaching the clips which hold them together. This I do by a little pressure with the thumb nail. I then soak my film in plain water, thus thoroughly wetting it and making it more easy to cover with developer. Then I start development in the dark or away from the light, much the same as in developing orthochromatic plates. When the image appears, I turn the film face down in the tray and develop until the picture shows well through the back, looking at it once in a while, to be sure that development is going along properly.

It is necessary to carry development farther than with a plate, developing until the face is almost black and very little of the image is to be seen.

After developing I proceed to fix as with plates, using an acid fixing-bath (Cyko formula), which hardens the film and eliminates all danger of frilling. After thorough fixing (it is a

good idea to keep the film moving in the fixing-bath) I wash in running water for an hour, then remove all the water possible. A tuft of absorbent cotton will do, although I draw them between my fingers, thus removing all drops of water from both sides at once. Now comes one of the very important points in handling them,—the drying.

Do not allow them to come in contact in any way with anything; if you do, they will stick to it, and your work will go for naught. I use little clips with a hook at one end, which I attach to the film and hang on a cord, which is strung across the room. Another good way is to tack them up to the edge of a shelf, having as little of the film as possible in contact with the object to which you tack them. Let them alone until thoroughly dry on both sides. They will not curl, and when dry are flat and easily handled. There is no danger of breaking one if you drop it by chance, and they are light to carry and easy to store.

I think the results more than compensate for the extra care one has to use in handling the film, and in my estimation they are far superior to any plates on the market. I most heartily recommend them to all who are seeking for the best results in our art.

## Unal as a Developer for Bromide Paper

C. WINTHROPE SOMERVILLE

**T**HIS, the latest addition to the ever increasing series of non-staining developers, provides us with a product in solid form, which, on being dissolved in water, gives a one-solution developer, requiring only greater dilution or the addition of potassium bromide for any necessary modification.

The manufacturers describe it as rodinal in solid form; but I do not think that this should be taken as an indication that its qualities are precisely the same, since over and above the general properties of rodinal it possesses some distinct features of its own. Density is attained with unal more rapidly, while the appearance of the half-tones and shadows during development is more perceptible and regular.

Upon dissolving the salt in water the solution assumes a yellow color, which tends to safety in developing, but the film is not stained. The strength of the normal solution is three hundred grains of unal to three and a half ounces of water; but for bromide paper the normal solution is rather too energetic. It should be diluted to twice its bulk.

For controlled development with a weak solution it is not necessary to dilute to such an extent as with other developers, and the influence of bromide is very similar to that which it exercises over rodinal. With under-exposure the shadows flash up fairly rapidly, and appear to remain stationary for some time, while the half-tones and high lights seem to drag themselves out

slowly; but there is little or no clogging of the shadows, so that a stronger solution may be used than would otherwise be the case. With correct exposure the image appears very uniformly, and has a pure gray color, the intensity of the shadows accumulating slowly and regularly, and the whole of the print having a clearness approaching that produced after fixing.

The slowness in attaining the full intensity must not be taken as a sign of under-exposure, and development may with safety be continued for some time after it appears to be complete. Over-exposure is at once seen by the more rapid appearance of the half-tones and high lights, and by the absence of any accumulation of density in the shadows. The deposit on a correctly exposed print is from a very pure platinotype black in the shadows to a dove gray in the higher half-

tones, the scale of gradation reproducing in reverse that of the negative very faithfully.

The influence of temperature on unal is very similar to that on other developers, development being most advantageously carried out at 65° F.

The following I have found to be a convenient table. It gives the number of grains of unal per ounce of water, which I find best for varying exposures on bromide paper, and is based on a solution of the normal strength of nine grains to the ounce:

Exposure.	Grains of Unal.	Water.	Minims of a 10% solution of Potassium Bromide.
Correct	3½ to 5½	1 ounce	Up to 4
Under (slight)	2 to 3	1 ounce	None
Under (excessive)	1 to 2	1 ounce	None
Over (slight)	4 to 5	1 ounce	6 to 8
Over (excessive)	5 to 8	1 ounce	8 to 12

The developer works so cleanly that the presence of bromide is rarely necessary.

## Foreign Abstracts

**Action of Chrome Alum on Gelatine** A. and L. Lumiere and Seyewetz have made an exhaustive study of the action of chrome alum on gelatine, and arrive at the following conclusions:

1. When treated with chromium salts, gelatine seems to fix the chromium directly, since its properties undergo numerous modifications and the chromium cannot be eliminated by numerous washings with boiling water.

2. The acid of the chromium salt, although strongly held by the gelatine, seems to have no part in causing insolubility, as it can be removed without modifying the properties of the insoluble gelatine.

3. The gelatine fixes a constant maximum

quantity of chromic oxide of between 3.3 g and 3.5 g to 100 g of gelatine, whatever the salt of chromium employed, which seems to indicate the existence of a definite compound.

4. Reasoning from the comparative ease of dissociation, the insoluble gelatine is rather an addition product than a true compound.

5. The dissociation of chromated gelatine by repeated treatment with boiling water can be prevented, either by washing with ammoniacal water under proper conditions the gelatine which has been treated with the chromium salt, or by adding to the gelatine, before the addition of the chromium salt, the quantity of ammonia theoretically necessary to neutralize the acid of this salt. (Bull. soc. franc. Phot., 1904: 73.)



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PHOTO  
ERA



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DRESDEN

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ADVERTISING RATES ON APPLICATION

Vol. XII APRIL, 1904 No. 4

When April winds grow soft,
The maple bursts into a flush
Of scarlet flowers.

— BRYANT.

April Landscapes With the return of spring, come the opportunities for outdoor work with the camera, that have been denied us all winter. To see beauty, to know where to look for it in landscapes, is more than half the battle won, towards making pictures artistic. A man with a good eye, trained to see pictorial effects in nature, will often make a picture by simply raising or lowering his camera a little, or standing a few feet to one side, or waiting until a cloud shadow falls over the middle distance, or watching until the wind has swung a tree to a certain angle. Art is near to nature; and when nature has done her work, it is only then that man's work is most capable of becoming artistic. For beauty is not a mere copy of imperfect nature, it is an absolute idea, the happy combination of the real and the ideal.

"The ideal," says Victor Cousin, "without the real lacks life: but the real without the ideal lacks pure beauty. Both need to exist, to join hands and to enter into alliance. In this way only, the best work may be achieved."
If you wish to photograph an April landscape successfully, take plenty of time to think about it. Having chosen your subject, then determine, by observation and study, the point of greatest interest in the picture. See whether the picture is improved by having this point centered, or moved to one side, or nearer the top or bottom. Art is always selection; and when good judgment is used, ripened by the study of good models, the best results are sure to come to him who knows what is aesthetically admissible in a picture. After the central point of interest has been selected, to confirm this interest, the leading point in the picture should be well lighted. The lines of composition should lead up to it. The background should not jump forward with the hard insistence of an object immediately in front. Rather let it melt away softly, giving perspective and atmosphere to the picture. Simple effects are always the best. Strong contrasts in light and shade are good, when they are massed, and are not found in scattered spots. Otherwise the picture is spotty and the broad effects so desirable in any picture are often hopelessly lost. Again, an April landscape in even sunlight might be pleasant, but if you throw a mystery across its middle distance in the form of a cloud shadow, that will blend together the rocks and trees, the print will take on dignity and become dramatic and suggestive. There is poetry and romance in such a picture, and it lends itself readily to the imagination. As the poet sings in tuneful melody of the April landscape, —

" It isn't raining rain to me,
But fields of clover bloom,
Where any buccaneering bee
May find his board and room.

" Here's health unto the happy !
A fig for him who frets.
It isn't raining rain to me ;
It's raining violets."

*Our Fire* We have had a number of cheerful mottoes struck off recently and hung up in the PHOTO ERA office, such as *Cheer up, Don't worry, The worst is yet to come*, and we are now working and whistling hard to keep our courage up, with every prospect of success. After apologizing to our readers in the February PHOTO ERA for the lateness of our appearance, due to the printers' strike in Boston, we determined to make up the lost time in March as rapidly as possible. The result was that the March number was ready to mail on the evening of March 20, and the copy for April was nearly all in the hands of the printer. During the night a fire broke out in our printing plant, and the whole edition was destroyed, together with much of the material for the April issue. Fortunately we had two copies of the March number in another building, and the printers went to work to replace the number, which they succeeded in doing in ten days. We trust that we shall not have to apologize again for delay from such causes in the near future, and expect to make up lost time on the next issue.

We desire to thank all our readers for their expressions of sympathy in our recent loss, and beg to assure them it is deeply appreciated. "Though slightly disfigured, we are still in the ring."

*The Photo Era at the World's Fair* The PHOTO ERA has secured at the Louisiana Purchase Exposition an exhibit space twice as large as any photographic magazine has ever been assigned at any previous exhibition, and will welcome all its readers and friends with open arms. We will have on exhibition the finest collection of photographs exhibited under any auspices in the entire exposition, — a collection which will be really representative of all that is highest and best in American photography. We do not assume too much when we say that no other single influence in the United States would be able to bring about such a result. Our collection is representative of every part of the United States and Europe, and every class of workers. No line has been drawn in gathering it, except that of artistic purpose and feeling. Our space is in the Liberal Arts Building, and

all photographers will be welcome there at any time while the exposition is open.

*The Practical Photographer* The phenomenal success of the PHOTO ERA in the artistic and photographic world and the repeated requests we have had for more technical information on photographic topics has encouraged us to cast our line in the same stream again. This time we offer an American Edition of the most successful photographic publication issued in England to-day, *The Practical Photographer*.

Although the first number of this most valuable periodical was announced for early in April, our fire has had the effect of greatly delaying its appearance, but at the present writing it is nearly ready for the market. The general opinion of those who have seen this number is best summed up in the opinion of a very critical and competent judge — that it is "the best book ever published on this group of topics." The whole subject of preparing a print for inspection after the printing is completed — including trimming, mounting, spotting, framing, making passe-partouts, even gilding the frame — is treated in a remarkably lucid and interesting fashion. The advance orders have come in so fast that we anticipate that the whole edition will be sold out at once on publication. We advise all our readers to order a copy from their dealer, or by mail at once, and so make sure of securing this valuable addition to the photographic library.

The second number, appearing in May, will be devoted to the general subject of "Bromide Printing," this inclusive term comprising all varieties of paper printed by gaslight or other artificial light. A full table of contents will be found in our advertising pages, and we advise a study of its fulness. The illustrations include six specimens of the work of A. Horsley Hinton, the editor of *The Amateur Photographer*, of London, and one of the foremost pictorialists of the world. The other illustrations are technical, reproducing the various effects obtainable in the bromide process by various methods of development and toning. For this number also, it would be the part of wisdom to order in advance, as it is the best guide to the subject with which we are acquainted.

**Masterpieces in Art** We have had a series of reproductions from the masterpieces of

Greek Art specially prepared for our readers, in photogravure form. They are printed from negatives made direct from the originals, 5½ x 8 in. in size, on specially made etching paper 9 x 12 inches, with plate-mark. Each series includes ten prints enclosed in a handsome heavy paper portfolio and is to be retailed at \$1.00 net. There are other subjects, like the works of the early Italian masters, which can also be supplied in the same way. These portfolios are three in number, A, B, and C, respectively, and contain reproductions from the time of Fra Angelico and his contemporaries down to and including Michael Angelo, Raphael, Veronese, Tintoretto, Da Vinci, and others of the period of the Italian Renaissance. With each series is a pamphlet prepared by an authority, giving full descriptions of each subject. This collection of photogravure prints is extremely valuable as an investment, besides its educational value to art students generally. We commend these photogravures to all who are interested enough in art education to desire to be familiar with the representative work of the masters.

**History by Photography** The National Historic Picture Guild of America recently est-

ablished in Boston by the PHOTO ERA, The American Journal of Photography, marks an epoch in the making of history. It is the application of the latest and most approved methods to historical research and record work. It is based upon the assumption that a photograph is an exact reproduction, as the human eye sees it, of the scenes or places to be depicted, and, therefore, is more truthful and accurate than any descriptive word-picture could possibly be. History by photography is the only absolutely true and reliable history, since photography cannot lie. It is not distorted or colored by the prejudices or views of the writer, but must and can only give the plain, bare truth. And, therefore, because of this truthfulness and accuracy this work, if sys-

tematically and rightly done, is sure to supersede all present methods of historical work, and will write the future history of this country, by putting into safe and enduring form the actual records of the present, for the benefit of posterity.

Already in England and France this work is being successfully done, and the pictures are being stored in the British Museum, at London, and in the Bibliotheque Nationale and the Musee Carnavalet, at Paris. In the United States the work is only begun in part. The PHOTO ERA has thus far succeeded in enlisting the interest and services of some of the vast army of amateur and professional photographers in the work. A charter list of nearly five hundred members, comprising some of the best workers from nearly every State in the Union, has been prepared, and the Guild is now endeavoring to have its organization perfected, in order to give shape and direction to its work.

A central correspondence bureau is about to be set up, where all matters relating to the details of organization may be taken up and be speedily and properly cared for.

**Our April Cover** It is a pleasure to call the attention of our readers to the handsome line of cover stock represented by the present issue of the PHOTO ERA. The Princess Covers, to which class it belongs, are among the newest, the most artistic, and most widely used on the paper market to-day. They have been proven by long experience to be the most economical and best adapted for the various purposes for which they were intended. The best is always the cheapest in the end. Having the essential qualities of texture, durability, and color, they lend themselves specially for mounts in photography and for fine catalogue work in printing. The tints are delicately graded for harmonious combinations and fine blendings with toned photographs. They are sold by all dealers and by the manufacturers, Messrs. C. H. Dexter & Sons, Windsor Locks, Connecticut, one of the oldest and most favorably known houses in the Connecticut Valley.

## Foreign Abstracts

### *Testing Chromatic Correction*

In the present day, when cheap, uncorrected glasses are freely sold under various names as photographic lenses, it may be useful to quote the instructions for testing the chromatic correction, as given in a recent issue of *Der Amateur Photograph* (February, 1904). A candle flame is focused on the screen, and as the screen is racked in and out so that the focal-plane is passed and repassed, the color fringe at the margin of the image will change from red to blue as the focal-plane is crossed. If the lens is uncorrected (like an ordinary spectacle glass), or if it is under-corrected, the margin will be red as the ground glass is racked nearer the lens, and blue as the ground glass is racked farther from the lens. Over-correction is shown by the contrary condition. For exact observations of this kind a very finely ground focusing screen and a magnifying eyepiece are desirable.

### *Making Color Screens*

Definite instructions for making color screens have a certain practical value, although in theory, at least, careful measurements or quantitative determinations should be made at each stage. The following instructions from the *Moniteur de la Photographie* (1904, p. 39) apply to the coloring matters manufactured by Messrs. Meister, Lucius, and Bruning. The colored gelatinous mixtures prepared as directed are used on the leveled glass to the amount of 7 cubic centimetres for every 100 square centimetres of surface, and the working screen consists of two such glasses, cemented face to face with Canada balsam. Taking Screens.—A, Blue Screen: Methylene blue, free from zinc chloride, 1 gramme; water, 100 ccm; acetic acid, 5 to 6 drops. To 100 ccm. of 8 per cent gelatine solution, add 6 ccm. of the above color solution. B, Green Screen: Tartrazine,

2.5 grammes; patent blue, 6 grammes; green naphthol, 4 grammes; water, 400 ccm. To 100 ccm. of 8 per cent gelatine solution, add 5 ccm. of the colored solution. C, Red Screen: Red "No. 1 for screens," or dianil red, 5 grammes; water, 200 ccm. Add 5 ccm. of the color solution to 100 ccm. of 8 per cent gelatine. With these screens the relative time of exposure will be: blue, 1; green, 3; red, 3.

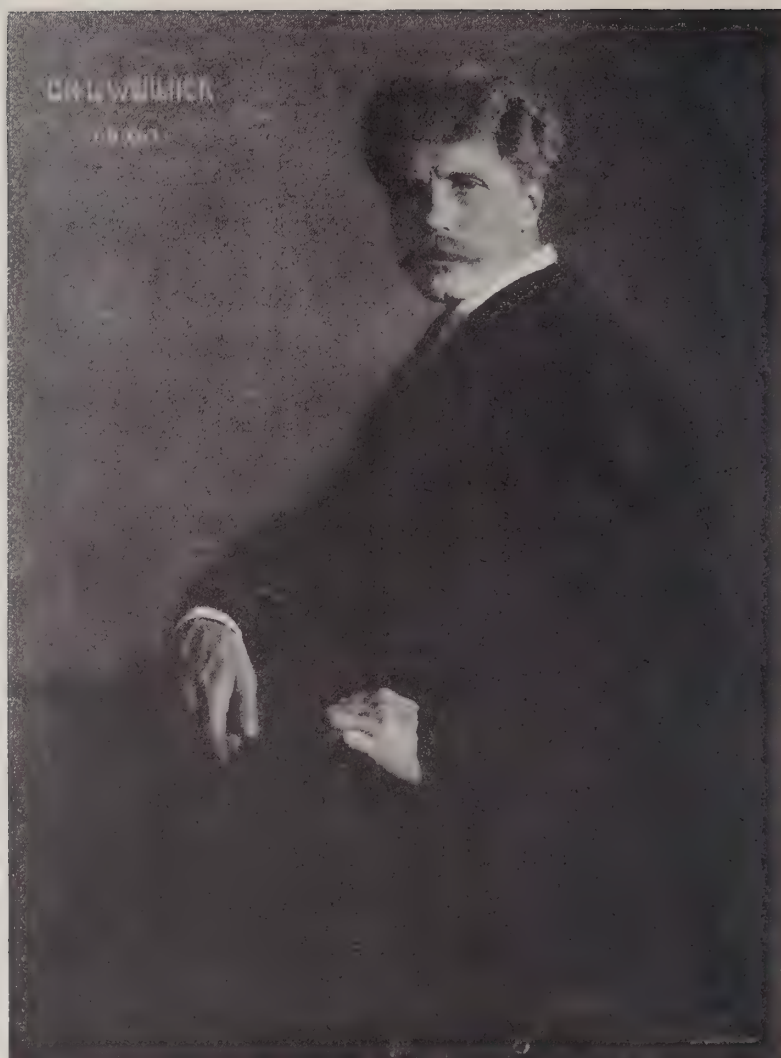
### *Color Sensitizing Agents*

A comparison of the three color-sensitizing agents<sup>31</sup> is made by Dr. E. Koenig in the *Photographische Mitteilungen* (1904, No. 6, p. 81). *Ethyl red* gives the plate a very satisfactory sensitiveness for the green and yellow, as far as the orange, but it leaves much to be wished, as far as sensitizing for the more definite red is concerned. *Orthochrome-T*: This sensitizes somewhat better for the red. *Pinachrome*: The quite deep red is rendered specially well when this is used, and the exposure under the red color screen is shortened. Dr. Koenig says that when the shortest exposure under the red screen is required, it is not desirable to obtain commercial pan-spectrum plates, but to sensitize, as required, by immersion. The best result was with the Seed plates, absolutely clear glass being obtained. Color-sensitizing Bath: One gramme of orthochrome-T, or of pinachrome, is dissolved in 100 ccm. of warm alcohol, and then 500 ccm. of alcohol and 400 ccm. of water are added. The actual bath consists of 4 ccm. of the above color solution, 200 ccm. of distilled water, and 2 ccm. of ammonia. Immersion from three to four minutes, with constant agitation, then two or three minutes' washing, and quick drying. It goes without saying that the color-sensitized plates should not be kept for a long time.—*Amateur Photographer*, 1904: 230.



BY NICOLA PERSCHEID  
LEIPZIG

PHOTO  
ERA



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LEIPZIG

PHOTO  
ERA



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ERA



BY NICOLA PERSCHEID  
LEIPZIG

PHOTO  
ERA

# The Round Robin Guild

Specially designed for the Amateur Photographer and the Beginner

Conducted by Elizabeth Flint Wade

(Any amateur photographer may belong by sending in his name and address)

"The wild and windy March once more  
Has shut his gates of sleet,  
And given us back the April Time,  
So fickle and so sweet."

Beginning with this "April Time, so fickle and so sweet," we open a series of monthly photographic competitions for any and all members of the Round Robin Guild. Subjects specially appropriate to the month in which the competition opens will be chosen. The subject for the April competition will be

## A RAINY DAY.

The making of a picture of a rainy day will be found to be a very interesting bit of work. Beautiful effects of mists, of wavering shadows, of "things seen through a glass darkly," may be obtained, and one will find a picture of a rainy day to have a charm about it which one made in the brilliant sunshine must ever lack. To protect the camera from the rain, use a piece of carriage cloth large enough to extend down the sides and back of the camera. To protect the front of the camera, two narrow strips of wood tacked near the center of the cloth and at one edge will let the cloth project over the front enough to shield the lens from the rain, and yet not shut off any of the light.

April will have many rainy days, and May is never without her quota of these really restful phases of nature; so if you do not succeed in making your picture in April, try a rainy May day, for the competition will not close until May 31st.

We hope all members of the Guild will take part in these competitions. Each member will not, of course, win a prize, but the stimulation received from the striving to do one's best makes a stepping-stone for fresh and better endeavors.

The picture should be sent in as early in the month as possible, as it is designed to reproduce one or two in the Guild department, out of the many which it is hoped will be found worthy of reproduction.

## LANTERN-SLIDE APPLIANCES

A number of devices for making lantern slides have been recently put on the market, and their use turns the process of slide-making into a very easy matter.

First is a special printing-frame for making slides by optical contact. The ordinary way is to use a large printing-frame the size of the negative, block out by means of non-actinic paper all of the negative except

that portion reserved for the picture, adjust the lantern plate over this, then put on the back of the printing-frame and make the necessary exposure. This process not only involves a great deal of extra work, but if the pressure on the plate is unequal, or the spring of the printing-frame stiff, there is danger of breaking and consequently ruining a fine negative.

The new frame designed for contact slide-printing has a small opening just the size of the lantern slide; and on the front of the frame, the strips of which are quite wide, there are four springs. The frame is opened, the negative from which the print is to be made placed on the front of the frame, and looking through from the back it is adjusted over the opening so that the portion which it is to be printed from comes in its proper place. The negative is then secured in place by means of the four springs. The slide is next placed in the opening, and the back of the frame adjusted the same as in the ordinary printing-frame. The film of negative and slide come in perfect optical contact, the springs holding them in place firmly, and the exposure is made. These frames cost but forty cents, and are well worth the money.

For making lantern slides by reduction there is a special camera with a fixed focus lens. The negative is inserted at one end of the camera, the slide at the other, and the exposure made. With this camera there is no centering of the slide or focusing to obtain a sharp picture. All this is done mechanically. Each camera is designed to be used with a special size negative, but the 4 x 5 size is the one for which amateurs would find the greatest use.

Did you ever see Annie Russell in that charming play of hers, "Mice and Men"? Then you will remember that in her rôle of the schoolgirl she was asked how she managed to unlock a certain door, and she replied very innocently, "I did it with a knack."

Now every one who has tried the binding of lantern slide and cover-glass together, knows just how much of a "knack" is required to hold the glasses in one hand and the sticky, curling, twisted binding in the other, and make the binding fit the glass smoothly. All this trouble is obviated, and the matter reduced to a very simple thing by the use of the lantern-slide clamp. The clamp is on a standard. The slide and cover-glass, fitted together, are slipped between the clamps, the metal of which is covered, with rubber disks, and a slight turn of a screw holds them in place. One thus has both hands

free to manipulate the binding, and the slide may be turned in the clamp, so that the unbound edge is always uppermost. If one is making many slides or few, this little holder will pay for itself in the saving of time and trouble, and you bind your slides with a happy "knack."

#### HANDY PHOTOGRAPHIC ARTICLES

Have you tried the little glass push-pin? It has a pin of sharp, thin steel, with a glass head, almost the miniature reproduction of the glass knobs once used on furniture. Its special use is for pinning up freshly developed films to dry; but it has been pressed into service wherever a small tack is needed, and does away with both tacks, and tack-hammer. It is easily and quickly inserted into wall or wood, and as quickly removed, and like the wave on the ocean sand, "leaves nor track nor trace." It is one of the best devices for pinning up prints, calendars, and a convenient peg for hanging small pictures on, etc. The seamstress likes it, for it secures, so that they cannot slip, pattern and cloth to her cutting-board. The artist likes it, in place of the thumb-tacks he has been accustomed to use, and withal it is a pretty thing of itself, and like the "Toodles' door-plate," a very handy thing to have in the house.

A new glass graduate which the amateur will appreciate is one with an unbreakable base. The graduate screws into the base, and if one is so unfortunate as to break it, a new glass may be bought and fitted to the old base. This style of base makes the handling of the graduate not so much a matter of care as when the base is of glass, for most of the accidents to graduates come by the breaking of the base, rendering them useless except when held in the hand. A clever amateur who had broken a number of graduates made himself a wooden base into which he cemented the broken base, and this graduate lasted him for several years. If you do not wish to purchase a graduate with a wooden base, then utilize your broken graduate by following the example of your fellow-craftsman, and make a wooden standard to hold it.

Another handy thing for the dark room is a glass funnel in cup-shape, and is for pouring liquids into small bottles, it not being of a capsizable nature like the ordinary glass funnel. It is also a very convenient little thing for filtering solutions.

One of the best fixing boxes is of hard rubber, as it is practically unbreakable and keeps clean easily. It has, however, one drawback. It is apt to become warped, or to get out of shape from the pressure of the water against its somewhat flexible sides. To preserve a box of this kind, have a wooden jacket made for it, just large enough to slip over the box easily, but of course without top or bottom. Keep the jacket on the box, and your fixing-box will last for many years.

One of the most convenient, and accurate print trimmers for photographic use is the rotary trimmer. It consists of a block of wood, along one edge of which

runs, on a frame, a wheel with finely ground edge. The print is held in place by a pressure plate, and when the rotary knife, which follows a groove across the board, reaches the end of the groove, the plate lifts automatically, and releases the print. The print is held in such a way that it cannot curl during the process of cutting, and the knife makes a perfectly clean edge without shreds, bits of paper, or rough spots. There is a rule to gauge the size of the print. Unlike the trimmer which employs a straight knife, this rotary cutter is a self-sharpener, and keeps sharp until it is worn out, when it may be replaced at a trifling expense. The price of this trimmer is very reasonable, the ten-inch size,—a size as large as any amateur would care to have—being only \$1.75.

A tray rocker is not a "must-have" of the dark room, but a set of them will be found very helpful assistants when one has half a dozen negatives developing in as many trays. The trays are easily kept in motion by means of the rockers, and leaves one free to examine negatives, change developer, etc. They cost from ten to twenty cents each, according to the size of tray used. They are much cheaper by the dozen.

For the amateur who is fond of making experiments, the duplicator is a very clever bit of apparatus. It enables one to make a picture of the same person twice on one plate; in other words, is a simple way of making photographic doubles. It slips over the lens, and shuts the light off from half of the plate. An exposure made, the duplicator adjusted to shield the exposed half of the plate, the sitter moved to the opposite side, and a second exposure made. When the plate is developed, there is no detecting the place where the two exposures meet on the plate. For this humorous side of photography the duplicator is better than any other kind of mechanism yet suggested or devised. It costs from twenty-five cents up to forty cents, according to the size of the lens tube.

One may make his own ruby glass by means of a varnish which tints glass a ruby color, and which goes by the name of rubiline or Ruby Varnish Bayer. Glass treated with this color is as safe as the ruby glass, and it is a very handy preparation for coating the glass in dark-room windows, the bulbs to electric light or Welsbach lights, etc.

#### ROUND ROBIN GUILD PHOTOGRAPHIC COMPETITIONS

Subject for the April competition, closing May 31st,  
A RAINY DAY.

Subject for the May competition, closing June 30th,  
THE BROOK IN SPRING-TIME

Subject for the June competition, closing July 31st,  
JUNE ROSES.

Any member of the Round Robin Guild may compete. If you are not a member of the Guild, send name and address, and a membership card will be sent to you. All photographs entered in the competition must be marked on the back with full name and address of the

sender, and in addition must be marked "Round Robin Guild Competition for April," or whatever month the picture is designed for. If stamps are enclosed, the prints will be returned to the sender after the competition closes, except those which are reserved for reproduction. Address the package, "PHOTO ERA, Round Robin Guild Department, Boston, Mass."

First prize: A yearly subscription to the PHOTO ERA, Édition de Luxe, value \$10.00.

Second Prize: Five dollars in cash.

Third Prize: Two dollars and a half in cash, or the choice of a yearly subscription to the PHOTO ERA or the PRACTICAL PHOTOGRAPHER, American Library Series.

Fourth Prize: One copy of the Édition de Luxe, value \$1.00.

Any questions in regard to the competition may be addressed to the editor of the department, who will answer by mail if return stamps are enclosed.

HISTORIC PICTURE GUILD

New circulars giving the work of the Historic Guild in detail, together with suggestions and directions for

the work of the individual members of the Guild, are being prepared, and will soon be ready for distribution. New phases of the work are continually presenting themselves, and already we have many orders for the books described in the January number and which are designed to use in mounting the historic pictures, furnishing them with suitable text and references, etc. These books are not yet ready for distribution, but one will soon be ready for circulation among the Guild members who desire to see how the work will look when completed. Later we shall be glad to take orders for the books, or will take orders now, file them, and deliver the books as soon as they are ready. Undoubtedly before many moons the Guild will become an incorporated organization, and membership in its ranks will be an honor sought for. At present there are no fees or dues, or expenses of any kind attached to membership in the Guild. The only expense which the member is expected to incur is the making of one or more fine negatives of a historic place, or of historic places.

Do not defer joining the membership while there is room for your name to appear on the grand roster roll.

PHOTOGRAPHIC EXHIBITIONS AND COMPETITIONS

SOCIETY OR TITLE	DATE	ENTRIES CLOSE	INQUIRE OF
Cape Town Photographic Salon.....	Apr. 4	Mar. 13	A. S. Fuller, P. O. Box 470, Cape Town, South Africa.
Croydon Camera Club .....	Apr. 6-13	.....	C. V. King, Hurst Bank, Selsdon Road, Sanderstead, Eng.
Chiswick Camera Club.....	April 23	Apr. 11	Herbert Gentry, 39 Fairfax Road, Chiswick, Eng.
Capital Camera Club, Washington.....	Apr. 30-May 11	Apr. 9	Francis C. Crow, 2317 Pa. Ave., N. W., Washington, D. C.
Salon de l'Exposition, Arras .....	May 1-Oct. 4	Apr. 5	Comité de l'Exposition, Arras, France.
Salon du Photo Club de Paris.....	May 3-June 5	Mar. 15	M. Paul Bourgeois, 44 rue des Mathurins, Paris, France
Louisiana Purchase Exposition.....	May-Nov.	Apr. 1	John A. Ockerson, Chief, Dept. Liberal Arts, St. Louis.
First International Salon in The Hague .....	June 12-July 24	June 1	Sekretariat Haag, Conradkade 63, The Hague, Netherlands.
International Photographic Exposition, Berlin...	Oct. 1-30	Sept. 1-20	Herr Franz Goercke, Berlin W. 62, Maassenstr. 32, Germany.
" Lantern-slide Competition.....	Oct. 15	Oct. 15	M. M. Vanderkindere, Palais du Midi, Brussels, Belgium.
" Stereogram Competition.....	Oct. 15	Oct. 15	" " " "
First American Photographic Salon, New York..	Dec., 1904	.....	S. C. Bullenkamp, 102 West 101st St., New York.
Northern Photographic Exhibition .....	June-July, 1905	.....	F. G. Issott, 62 Compton Road, Harehills, Leeds, Eng.

GIVER	CLOSES	PRIZES
Kodak N. C. Film Competition.....	June 10	£500—209 prizes.
Kodoid Plate Competition.....	June 10	£300—99 " "
Kodak Developing Machine Competition .....	June 10	£800—96 " "
Photo-American, Stamford, Conn. ....	July 1	\$5 in goods.
Photogram, Arundel St., Strand, London.....	Monthly	One guinea and half guinea.
The American Boy, Detroit.....	Monthly	\$2, \$1.
National Sportsman, Boston.....	Monthly	\$5, \$3, \$1, \$1.
Browning's Magazine, Boston .....	Monthly	\$5, \$3, \$2.
The Book-Lover, New York.....	Monthly	\$5, \$3, \$2, \$1.
Leslie's Weekly, New York.....	Weekly	\$10, \$5, \$1.
Buffalo Express.....	"	\$5 to \$25.
New York Evening Mail .....	"	\$5.
Commercial Advertiser, New York .....	"	\$5, \$3, \$2, \$1.
St. Louis Star.....	"	\$5.

# Notes and News

## OFFICIAL NOTICE NO. 2. TO THE PHOTOGRAPHIC FRATERNITY

It having reached the ears of several members of the Executive Board of the Photographers Association of America, that the report is going the rounds that there is to be no National Convention this year, owing to its being World's Fair Year, and your Executive Board having planned for a convention that will far surpass any ever given, as the Secretary of said Board, I wish to emphatically deny such rumors.

Your Executive Board never knew such a word as "fail,"—in fact we had to ask a back number photographer how to spell the word; and to the end that our coming National Convention will far surpass anything ever given, we have secured the Forest Park University Hotel (which is located within a stone's throw of the World's Fair Grounds), to take care of our photographic friends, and in which to hold our meetings.

It is the intention of the Board that only morning sessions be held, and the afternoons are to be given to seeing the Fair, and visiting the art halls, where we will have capable artists to deliver lectures on the many fine works of art therein. This alone will be a very instructive feature of the Convention, and every one will profit immensely by the instructions given.

The greatest National Convention ever held will convene in St. Louis during the first week in October, from the 3rd to the 8th, inclusive.

This will be just before your holiday work begins, and you will have every opportunity to gain new ideas, and the Lord help the fellow that does not try to help himself.

It will be painful to you to have to admit to your artistic patrons that you did not see the works of art at the grandest exhibition of that nature ever held in this country; but by taking in the Fair you can also take in the Greatest Convention, and thereby kill the two proverbial birds.

Rates have been secured at the Forest Park University Hotel which will be much lower than any rate secured elsewhere; but this rate is for members of the Association Only.

To secure these rates, as well as to secure accommodations in advance for Convention week, it will be necessary that you be furnished with a certified receipt from the Treasurer, Mr. Frank R. Barrows, 1873 Dorchester Ave., Boston, Mass., showing that you are a member in good standing. Upon receipt of same you can write to Mr. J. J. Grafton, Lessee and Manager, care of Forest Park University Hotel, stating when you want to come, and that you are a member of the Photographers Association of America; he will then set aside as many rooms as you will want for that week, and same will be at your disposal during the Convention Week. Under no other

conditions will you be able to secure these accommodations.

Bear in mind that the Executive Board have promised you the grandest and best convention ever held, and to redeem that promise every member of said Board is working night and day to see that same is fulfilled.

Our Official Journal will be a thing of beauty and a joy forever, and woe to the one who fails to receive a copy of same. It will be yours for the asking, if you are in good standing.

There are many things that I would like to say to you this trip, but lack of time and space forbids. However, it is my intention to visit many of the State Conventions this year, and I will tell you more when I meet you.

With very best regards, I beg to remain,

Cordially and Fraternally Yours,

GEO. G. HOLLOWAY.

Sec'y P. A. of A., Terre Haute, Ind.

## ANSWERS TO CORRESPONDENTS

Alice Swain.—While there is the difference of only one letter in the spelling of ferrocyanide of potassium, and ferricyanide of potassium, there is a very great deal of difference between the two chemicals. Ferricyanide of potassium is red prussiate of potash, and comes in the form of brilliant red crystals. It is used in solution, and combined with hypo for reducing density in negatives, and is one of the ingredients used for preparing blue-print paper. Ferrocyanide of potassium is yellow prussiate of potash, and comes in large yellow crystals. It is sometimes used as an accelerator in developers.

Ben. F. H.—You can buy a package of carbon paper in assorted colors, cut in sizes 5x7 and 6 1-2x8 1-2. The price is sixty cents a dozen for the 5x7, and one dollar a dozen for the larger size. There are fourteen sheets in a package, and each sheet is a different color.

Julia H. Trent.—Hints on making money with the camera will be found in the Round Robin Guild department of the June PHOTO ERA, 1902. Fifteen cents will bring the number to you if you do not have it on file. Silver paper which has discolored as badly as you describe, cannot be treated in any way to make satisfactory prints. Sometimes the stains bleach out in the hypo, but the prints are never quite clear.

A. F. Green.—To turn the color of your blue-prints to a brown, place them in a solution of ammonia made up in the proportion of 1 1-2 ounces of stronger ammonia to 12 ounces of water. Leave them in this solution till they are nearly bleached out, then rinse, and soak in a bath of 154 grains of tannic acid to 7 1-2 ounces of water until the picture is restored and has become the desired color. Wash and dry.

# A European Tour for Photographers

FRANK ROY FRAPRIE



SAN GIORGIO, VENICE

FROM its inception the PHOTO ERA'S mission to American photographers has been one of education, especially on artistic lines. We have endeavored to present the best photographs of all schools, and in especial have tried to bring forward new workers and encourage the efforts of beginners. We have not believed that the power to produce artistic photographs is confined to any group or region, and so have endeavored and will endeavor to encourage independent workers.

It has long been evident to us, however, that the opportunities afforded by small American communities are often inadequate to bring out latent ability to the best advantage. Not only are the chances to study the world's best art, even in reproductions, lacking, but the inspiration given by the companionship of kindred minds may be absent, and even suitable material for representation may be scarce. Of course, portraits may be taken everywhere, but it is not always possible to find diversified subjects in the way of landscape, architecture, and genre. The efforts sometimes made in this direction, even by good workers, are not always to be commended. A pair of wooden shoes and a white cap alone will not transform an American child into a peasant maiden, and a close observer can pick flaws in many a prize picture, even though artistic feeling is discernible.

Finding thus a direction in which it may ex-

tend its usefulness, the PHOTO ERA offers to serious photographers an opportunity to increase their powers by spending the summer in inspiring companionship and surroundings. It offers to a small party the opportunity to visit the greatest art centers of the world under expert guidance and to see the masterpieces of art in company with well-known college teachers of art history, by visiting the great Italian galleries under the auspices of the summer university of the Bureau of University Travel. It gives the opportunity to photograph some of the most inspiring scenes of history and some of the most beautiful and picturesque localities of the world. The PHOTO ERA trip to Europe does not follow the beaten path. While visiting the great cities which all travelers must see, and devoting a goodly share of its time to them, the greater portion of the land journey is devoted to the incomparable mountain scenery of Switzerland, to the picturesque hill towns of



STATUE OF COLLEONE, VENICE



COURTYARD, FLORENCE

Italy, to the romantic Tyrol, and to the medieval cities of southern Germany. As an alternative to the latter portion of the trip, any member may elect a cruise of three weeks on a commodious and specially engaged steamer, visiting Sicily, Greece, the Ægean, and Constantinople.

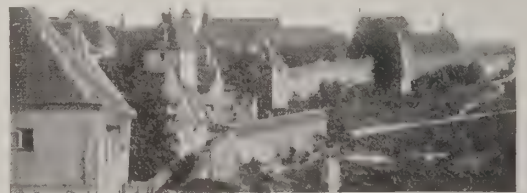
As an incentive to serious photographic work, we offer as a prize for the best collection of photographs taken by a member of the party, the entire cost of the trip.

The party will sail from New York on the Red Star Line steamer "Zeeland," on June 18, and will land at Antwerp on the 27th or 28th. During the voyage all will have an excellent opportunity to become acquainted with the leader of the party, the present writer, and the aims and purposes of the trip will be fully discussed.

The length of the stay in Antwerp depends on the time of landing, but as we have a full day there at the end of the trip, an early train will be taken for Ghent, where we at once step back into the Middle Ages. The visit here will serve merely as an introductory glimpse of old Europe, and, without making an extended stop, we depart for Paris, where we shall spend six days. The attractions of Paris need no enumeration. Besides giving plenty of time for the accomplishment of individual desires, we shall have the opportunity of studying the magnificent art collections of the Louvre and the Luxembourg, the Cluny Museum, Notre Dame, and other monuments of the great city, and of visiting the picturesque environs, such as Versailles, St. Denis, St. Cloud, etc.

While we may use some rolls of film on the

buildings of Paris, the artistic possibilities of the trip begin to open before us with our first Swiss city, Berne. This affords innumerable pictures with its arcaded streets, its fountains and towers, and the novelty of its street life. Another sort of pictures will be taken on our trip through the Bernese Oberland, with its wonderful mountains and lakes, and its pleasant towns and valleys. Returning to Berne, we journey to Lausanne, high above Lake Geneva, with a wide range of mountain scenery. After the lake trip past the castle of Chillon to Brieg, we travel by rail to Zermatt, the highest town in the Alps, with the grandest view of Switzerland, dominated by the stupendous Matterhorn and the glacier-strewn Monte Rosa. To see these to the best advantage we take the incredible mountain railway to the Gornergrat, where full opportunity is given for photographic work. Returning to Brieg, we take carriages for a drive of forty-one miles over the Simplon Pass, the most picturesque of all the Alpine passes. The journey offers countless chances for the camera, which will doubtless be availed of to the utmost. At Pallanza we reach Lake Maggiore, and then visit in succession the three great Italian lakes, with their unrivaled scenery. From Como we take the train for Milan, where we shall spend two days. The famous cathedral, although well known, is not the greatest attraction of the city to the photographer, and we shall find much to occupy our attention. The great Castello is a magnificent specimen of Renaissance fortification, and now contains an archæological museum of great interest. The party, however, will probably be impatient to leave Milan and reach Venice, the most romantic city in the world. Here we shall stop five days, although the photographic possibilities could not be exhausted in as many weeks. Venice is an incomparable treas-



THE WALLS, ROTHENBURG



A GERMAN RIVER

By F. R. Fraprie

ure-house for the artist,—a mine whose rich lodes have barely been attacked. Artists have painted, drawn, and etched here for years, but the field is ever fresh. The photographer will find virgin soil. Not only is the city itself full of picturesque bits, but the lagoons about it, with their fishing-boats and picturesque places,—such as Torcello, the mother island; Murano, the famous manufactory of glass and lace; Chioggia, a fishing town; Lido, the great seaside resort and bathing place,—will afford us delightful excursions. We shall not fail also to study the magnificent picture collections of the Ducal Palace and the Academy, with their full representation of the Venetian school. A pleasant ride through the Apennines brings us to Florence, where we shall make another extended stop. Besides seeing the art treasures, we shall have the opportunity of photographing a fifteenth-century city full of bits of picturesque and

historical interest. We shall also take excursions to many little-known but beautiful places, such as Fiesole, Certosa, and other picturesque hill towns.

Leaving Florence with regret, we come to Rome, the city of the Cæsars, the attractions of whose seven hills it is needless to mention. Ten days is none too long for our visit here. On leaving Rome, if we decide to follow the regular itinerary, we shall take a steamer at Anzio for the famous island of Capri. Capri offers some of the most magnificent views in the world, and we shall spend the entire day in the island. Leaving in the morning for Sorrento, we take the famous drive around the Bay of Naples, visiting Amalfi and Salerno. From Salerno we take the train to Pompeii, and after exploring the famous ruins return to Naples, whence we leave the next day for Rome.

The next stop on our trip is Assisi, the home of St. Francis,

an almost untouched medieval town. Next we visit its age-long rival, Perugia, an impregnable fortress before the advent of modern weapons. Its citadel has sat upon a hilltop for nearly three thousand years. Our next stop is Siena, an ancient rival of Florence, far up in the hills, and consequently



IN THE BRENNER PASS

By F. R. Fraprie

left aside by modern progress. At Pisa we shall find one of the most remarkable collections of ecclesiastical buildings in the world, including the famous cathedral, the baptistry, and the leaning tower. Crossing the Apennines and the level plain, we reach Brescia, which, though interesting in itself, is but a way station to the Lake of Garda. Although the least visited, this has by far the grandest scenery among the Italian lakes, the precipitousness of its mountains recalling the fjords of Norway. Our steamer ride the whole length of the lake brings us to Riva, nestling amid vineyards and olive groves among mountains at the head. Passing by Arco, with its picturesque cypress groves and ruined castle of the Scaligers, we reach the Brenner railway at Mori. The scenery of this most picturesque of all the Alpine passes makes the ride to Innsbruck only too short.

After exhausting the possibilities of this key to the Alps, set in a basin ringed with snow-clad mountains, we take the railway for a short trip to Zirl. Here will be found our coaches for a two days' trip through the southern Tyrol, stopping at Mittenwald and Garmisch, to Oberammergau, famous for its Passion Play and beautiful scenery.



THE ZUGSPITZE

By F. R. Fraprie



ROTHENBURG

By F. R. Fraprie

After visiting the royal castles of Linderhof and Neuschwanstein, the magnificent monuments of a mad monarch, we reach Munich, the city of art and beer, as the inhabitants are wont to boast.

Munich is a monumental city, and contains magnificent art collections, and the three days which we spend here are none too many. An hour's ride brings us to Augsburg, older than Munich, but long since passed in the commercial race.

Our next stopping-place is Nuremberg, famous as a medieval remnant, but which has become so great in modern times that the ancient relics seem almost buried in the newness. In order to see an ancient German city we visit Rothenburg ob der Tauber. The city has remained stagnant since its capture by Tilly more than two hundred years ago, and has only recently shown some symptoms of reviving activity. The authorities, realizing the histori-



OLIVE GROVE IN CIRCE'S ISLE

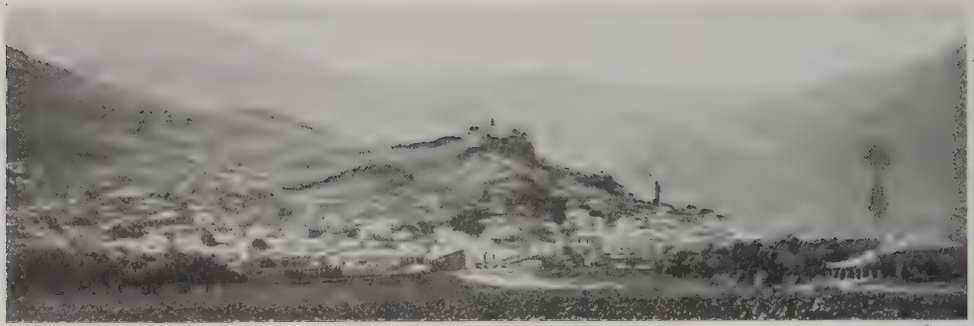
cal importance of preserving the ancient town as a monument, allow no changes to be made in the architecture of buildings within the walls, and there is not a modern structure within the ring wall, the ramparts and towers of which are complete and intact. The town abounds in opportunities for the artist and photographer, and our stay here will result in many a prized picture. Passing through Würzburg, with its old bridge over the Main, we reach Heidelberg, famous for its beauty of situation, and the ruins of its castle, as well as for its university. The next stage, the famous sail down the Rhine, brings us to Cologne, whence we journey to Brussels, often called a "miniature Paris." The city has attractions which have no duplicate in Paris, however, and is well worthy of a visit. After a day here, we return to Antwerp, whence we sail for New York, reaching there on the 13th of September.

For those who have seen Germany, or who would prefer a trip which can be taken under no other auspices, we offer the option of a Greek trip departing from Rome. Travel in Greece and the adjacent islands is practically impossible except by steamer, and the steamer specially chartered by us offers an opportunity afforded under no other auspices. Sepa-

rating from the rest of the party at Capri, we sail by the ever active island volcano of Stromboli, through the Strait of Messina to Taormina, famous in Sicilian history, and reputed to have the most picturesque site in the whole world. The whole eastern half of Sicily, with range on range and peak on peak, crowned by ever smoking Ætna, lies before us. On the north the blue sea is bounded by boldly jutting headlands of every variety of picturesque form. The Greek remains of Taormina are also remarkable, and the city offers interesting Moorish architecture. The next morning we are in Syracuse, with another view of Ætna. Here again we find Greek ruins, and also remarkable catacombs and quarries, dating back almost to the dawn of history. Lifting anchor, we sail for a day through the blue Mediterranean, and our next landfall is in the picturesque Ionian Isles. From Catacolon we take the train to Olympia, where the greatest athletic games of Greece were celebrated for more than a thousand years. Sailing again at night we awake in the morning under the shadow of Mt. Parnassus, and land for the trip to Delphi. Riding across the olive-planted plain and up the heights of Parnassus, we reach the shining cliffs from which gushes



STREET SCENE IN ATHENS



AMPHISSIA, NEAR DELPHI. PARNASSUS RANGE BEYOND

forth the Castalian Spring. We eat our lunch under the plane trees whose ancestor was planted by Agamemnon, and then visit the ruins of the most famous oracle of antiquity.

Sailing by night through the Isthmian Canal, the next day is devoted to Mycenæ and Tiryns, the homes of the earliest Greek civilization, with their massive ruins. Our next visit is to Ægina, with its beautiful temple from which we look across to Athens and its shining Acropolis. Sailing across the bay of Salamis, we reach Eleusis, the home of the Athenian mysteries, whence we drive over the Sacred Way through Daphne's grove to Athens. Here we spend nearly a week. No description of Athens is necessary. We will simply correct the idea that Athens is a mass of ruins, while as a matter of fact one gets a much better idea of the age of Pericles on the Acropolis than Rome can give of the empire of the Cæsars. Our next steamer sail brings us to Constantinople, one of the most picturesque cities of the world, and one which gives us a glimpse of a civilization entirely alien to our own. The sail through the Bosphorus is far more impressive than that up the Hudson, perhaps its only rival in the

world. Returning through the Dardanelles we spend a day at Pergamon, the Athens of Asia Minor, with an even greater acropolis than that of the city of Pericles itself. Once again we find here, as on every Greek temple site, one of those matchless views which were the joy of the gods. Sailing through the Cyclades, we stop at Delos, another famous shrine of Apollo, and then on to Marathon, where we visit the famous battle-field.

Steaming again past Athens and through the Isthmian Canal, we visit Corfu, — an island before whose glory even the beauty of Capri pales. After returning to Naples, and visiting Pompeii, we take the steamer for New York, stopping at Gibraltar and the Azores, and arriving on the 13th of September.

Throughout the entire trip all possible attention will be given to photographic interests, but no opportunity of studying the art and civilization of the countries visited will be neglected. The photographic and artistic knowledge of the leader will be at all times at the service of the party, and no effort will be spared to make the trip as delightful as possible to every member of the party.



FRONT OF STAGE, THEATER OF DIONYSOS, ATHENS



BERKSHIRE HILLS

By Herbert W. Taylor

## A Railroad Idyl

HERBERT W. TAYLOR

ONE of the many beautiful garden spots of America lies in the western part of Massachusetts, beyond the Connecticut River, where one of its tributary streams, the Westfield River, winds among the Berkshire Hills. Following the tortuous path of the stream, twisting and turning in a succession of horseshoe curves, are found the tracks of the Boston and Albany Railroad, the great thoroughfare between New England and the West. Here are more of those delightful little stone stations, with their well-kept walks and shrubbery, which have helped to gain for this line the title of "The Railroad Beautiful."

Traveling westward, we enter fairy-land soon after leaving Springfield, and passing through a succession of "fields,"—Westfield, Fairfield, and Middlefield,—we arrive at Chester, a pretty little hamlet nestling in a bowl-like valley, completely surrounded by lofty hills. Here is taken on the "pusher"; and with an engine behind as well as in front, we begin to climb higher. At first there seems to be no way of leaving Chester save by scaling the mountains; but the river shows the way, and we follow along through deep cuts in the solid rock, crossing the stream again and again, until the tunnel at State Line finally leads us into New York State.



WESTFIELD RIVER

Fine views of the scenery may be had while driving over the State road, which trails along, often in sight of the railroad. The State road, where it has been completed, rivals in smoothness the magnificent driveways around Lake Lucerne and over the Brunig Pass in Switzerland, splendid traveling for vehicles and bicycles. Still better, however, is a tramp afoot; and that is how I saw the Berkshire Hills, in October, when the strong sun playing upon the brilliant foliage displayed masses of brightest colors.

The great charm of the tour is that while it is comfortable to know that the next town is never more than five or six miles distant, yet there is the full enjoyment of nature untouched by the influence of civilization. Houses are far between, and the towns are small and have that air of peaceful content that goes with a residence remote from the pushing, struggling humanity of a business center. The only town which shows the restless spirit of commercialism is Huntington, where there are factories. There, are to be sure, numerous other mills of

various kinds scattered along the river, but they are not effective blots upon the landscape.

The stations with their little clusters of houses would seem to have been dropped in just the right spots to lend the most effective touches to nature's composition. Chester is beautifully picturesque. Russell, — the station for Blandford, six miles off in the hills where the health-seeker is promised the fountain of youth and beauty, — Russell rests on the bank of the Westfield where it suddenly widens out into an imposing river, suggesting the Rhine, with the great bluffs overhanging the railroad

where it traverses the bank on a narrow ledge. Then there is the attractive stone depot at Middlefield, with hardly a house in sight, but boasting a view of mountain and stream that rivals in grandeur the Alpine scenery of Switzerland.

Totally different though equally interesting is the picture at Dalton, where the line emerges from the confinement of the mountains and we have a sweeping view of a broad, deep valley,



WINDING THROUGH THE BERKSHIRES

as we approach the prosperous town where the paper is manufactured for printing our national currency. Churches, public library, handsome residences bordering the village main street, with its elm trees mingling their branches overhead, all testify to the civic pride of the townspeople of Dalton.

We have now had our last look at the glories of the hills and soon arrive at the city of Pittsfield, where we may either visit Lenox and Stockbridge, or go on to Albany, with the choice of the Hudson River, Saratoga, Niagara Falls, or the Adirondacks; but whichever path we

thickly wooded hills, where the path seems to stop short before a threatening peak; but we follow the river's lead around a sharp curve, where the engine of a passing train seems bent on circling around behind to push its own rear cars. Or, leaving the river for a short time, the railroad makes its own way out through a gigantic cut in the solid rock, the peaks reaching up to kiss the clouds, and the rocky walls ever glistening with the trickling waters of innumerable hidden springs. Then oftentimes we would come out upon a beautiful green valley, the hills retreating before the broaden-



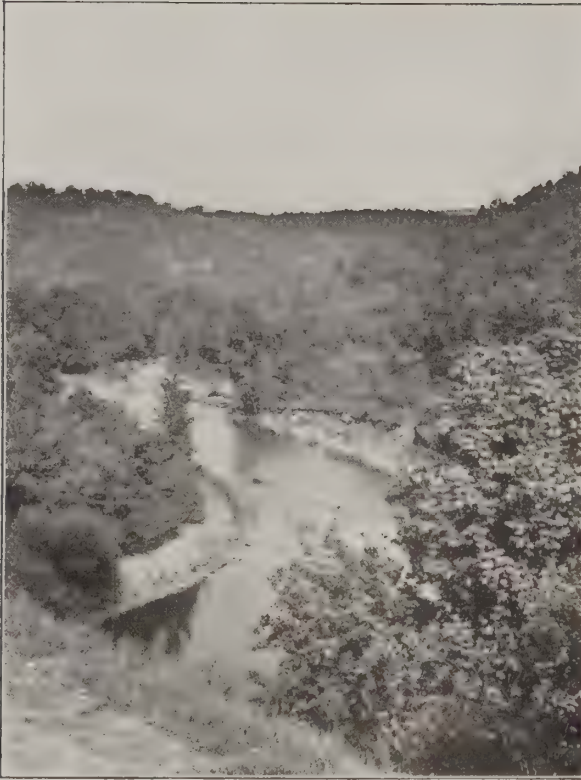
ROUNDING A CURVE

choose, the spell of those glorious autumn tints in the heart of the Berkshire Hills will last for many a day.

I went out on a commission from the railroad company to make a series of views to be shown at the Louisiana Purchase Exposition, and I walked many miles over the tracks, through the most beautiful picture-land that it has ever been my lot to see. The scenery is varied and full of surprises, so that one travels along in a state of constant expectation, sometimes through a narrow valley shut in between

ing river, as it flows with a long graceful sweep and disappears among the distant mountains.

It may well have been a similar view that inspired Carleton Noyes to write, "To him who has never opened his eyes to the beauty of field and hills and trees and sky, to him whose spirit has not dimly apprehended something of that eternal significance of which these things were the material, visible bodying forth, to such a one the work of the master is only so much paint and canvas." Certain it is, that if "art is the expression of an inspiration," the painter



ALONG THE RIGHT OF WAY

or photographer must be inspired to do his best here, where there is so much nobility in nature.

Various plans were suggested in consultation with the railroad officials as to the best method of covering the ground, one being that an engine and car might be placed at my disposal. Then we talked of the "Berkshire," — a combination engine with a passenger compartment over the boiler, which is used for tours of inspection. This is really an ideal way of seeing the country without physical effort, as there is an unobstructed view through the front window, as well as at the sides; but the difficulty which both schemes presented was the necessity for keeping out of the way of regular trains, so that I decided to go afoot, and I am very glad that was the plan adopted.

As a preliminary to the actual work of making pictures, I took a trip over the line on a regular train and made small snap-shots from the rear platform, gaining in this way a fair idea of the location of the most interesting views.

Mr. Ackiss, whose duty in connection with the road is to present the attractions of that

line to the traveling public, was my companion for a part of the time, and his fine appreciation of the composition of a picture made him a congenial and helpful comrade. We stayed the first night at White's Hotel, in Chester, and found it so comfortable that we spent several other nights with Mr. White, taking an early morning train to the station from which we purposed starting to walk.

Leaving Chester the first morning with a lunch-box added to our impedimenta, we spent the whole day on the road to Middlefield, finding a picture at every turn of the road through this, the most picturesque section of the line. We had walked only a short distance when we discovered what is, perhaps, the most interesting composition in the series, — the view through the valley, where the eye starting from a picturesque farmhouse in the foreground,



BY THE ROADSIDE



A CHARMING BIT

follows the track as it threads its silvery path between high hills covered with masses of white birch, to finally lose itself among the distant mountains, piled tier above tier in the shadowy distance. A little later we stood beside the track and photographed the stream where it came out from under a bridge, seemingly glorying in its new-found freedom as it reached out and strove to push aside the sandy banks at our feet. When a desire for lunch made itself felt, we chose the crest of one of the numerous deep-cleft cuts, and lunched with an eye on the timetable, so that we were ready for the westbound express when it laboriously puffed into sight. The relative sizes of this train and of the wall of solid rock, speak eloquently of the engineering feats accomplished, when, years ago, the path was hewn out, long before the day of dynamite.

I can imagine no greater pleasure than to spend a day in so beautiful a bit of country with the feeling of absolute freedom that comes with the knowledge that time need not be considered, so that we might linger as long as we wished

over a composition, and leisurely walk along until another startlingly beautiful view compelled attention. The one condition that each picture should contain *a priori* evidence of being a railroad view was rather unsatisfactory; but I have learned that in the Berkshires it is possible to obtain artistic pictures, even though a double line of track does run through the view.

On our first day we passed less than half a dozen farmhouses scattered over the six miles, so that except for an occasional passing train we were practically alone with nature. We became quite chummy, in a way, with the trainmen, seeing the same crews day after day, until they seemed to feel that we were old friends, just as we came to look upon them; and the man who was guiding a precious freight of humanity over the glistening curves would often lean far out of the cab and wave a friendly salutation.

Then once in a while we passed a miserable specimen of degenerate manhood, trudging along with averted eyes, on his way to the next place where he would beg or demand alms, according

to whether there was a dog or not. By way of contrast the happy-go-lucky phase of hobo life had a worthy representative in the cheerful fellow lucky enough to steal a ride on the freight, who evinced his pleasure in the life by shying a lump of coal at the camera, meanwhile grinning with pure joy.

Still, it was a distinct relief when both worthies faded out of sight, and we could say again with Whitman :

" I inhale great draughts of space ;  
The east and the west are mine, and the north  
And the south are mine.  
.  
.  
All seems beautiful to me."

A charming bit came upon our view as a surprise when we climbed down to the roadway at Middlefield and found a pretty little picture, — a rustic farmhouse on the bank of the river, ready framed in the granite arch of a bridge, the whole in a tone which would have delighted a colorist. It was almost regretfully that we approached the station at the close of day and took a train back to White's hospitable board, bringing wonderful appetites, notwithstanding the many apples we had eaten during the day's walk. It was at the height of the apple season, and I never could get Mr. Ackiss past an orchard, though he claimed the score was even when he tried to tear me away from a

graceful elm, which used four of my plates. Sometimes it rained, and there was no poetry in the landscape. I remember one sad morning when we waited in the little station at Becket for the sun that fortunately appeared and drove away the rain at noon. It was just beyond Becket that we found the little pool, seeking shelter in a group of leafless trees, that made quite an interesting picture. But the exciting moment of the tour was at State Line, when the train came thundering through the tunnel on a down grade and burst upon our view in a cloud of smoke and steam, covering us with dust and sparks, as though intent upon evading the camera in the confusion. But if such were the case, it was in vain. I was quick enough for once to seize the psychological moment, and we have an exhilarating picture to pay for the long hour of waiting.

Altogether life was very pleasant during those days that we passed along the B. & A. R. R. and it was always with a feeling of regret that along in the twilight, when Nature had brought her field and hill into tone, the day's work done, we sauntered back to town, never quite knowing when we should get there, but comfortably sure that there was a welcome somewhere before us, and with the prayer of Stevenson upon our lips : " Bring us to our resting beds weary and content and undishonored, and grant us in the end the gift of sleep."



STATE LINE TUNNEL





ACHILLES  
BY F HOLLAND DAY

# PHOTO ERA

## The American Journal of Photography

VOLUME XII

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NUMBER 5

### May

Hail, bounteous May, that doth inspire  
Mirth, and youth and warm desire;  
Woods and groves are of thy dressing,  
Hill and dale doth boast thy blessing.  
Thus we salute thee with our early song,  
And welcome thee, and wish thee long.

—John Milton.

### Japan through my Camera

ZAIDA BEN YÛSUF

**B**EFORE I left home on a recent journey I longed for the possibility of leaving cameras behind. I was tired of them. The very names spoiled the prospect of pleasures to come. Yet, no sooner had I actually started on my way than I became infected with the camera fever that seemed to possess every one around me, and by the time we had arrived at Vancouver even I was as enthusiastic as many of my fellow-travelers. To be in the fashion you must sport at least one and know all about the most up-to-date sorts. It's a knowledge, however, that takes its proper place, assuming no undue importance, with the clever, busy people who form so large a proportion of the amateur photographers one meets, and certainly it is an amusement that may be added to a great variety of other interests. Opportunities for the tourist to bring home souvenirs are also open to the foreign resident, becoming in their hands of a more permanent value and helping them to find a pleasure in what otherwise might be tedious months, even years, spent far from home.

I believe these exceptional advantages are beginning to be appreciated. Mrs. W——, of the American Legation in Tokyo, for example, has her coachman trained so that he stops quickly, turning the carriage to right or left in response to her signal, in order that she may use her camera without alighting. Her special hobby is interesting street scenes, particularly of the Japanese quarters. Mr. B——, and his brother, of the English Legation in Tokyo, have good-natured rivalry over fine collections of photographs taken during their frequent hunting trips. One of the daughters of Admiral S——, United States Navy, is amusing herself this year with a panorama camera. Mr. A. H. D., for many years a resident of Yokohama, is also using one for outdoor views. He showed me a very successful lot made during a bicycle tour of Japan. At the time I met him he was going home, taking with him to show his English relatives a lot of portraits that seemed to me must be all the babies of the English set in Yokohama. Mr. and Mrs. T——, of the American

Legation, Cairo, were making a photographic collection of flower arrangements while on their journey through Japan. Count L——, a German diplomat, had with him a kodak to gather souvenirs of his flying trip half round the world and back on some special mission. I found that he, like many others, knew all about the different types of lenses. Monsieur B——, of the *corps diplomatique* in Indo-China, described to me with much practical discrimination things that were interesting to photograph in that part of the world, as well as the difficulties of temperature, impure water supply, and the like. Of course, there are hundreds more, but the point is that what these few are doing may suggest ideas to amateurs traveling in any part of the world under any circumstances.

Everybody seems to be quite reckless as to the number of cameras he gradually acquires. The residents generally order direct from England or France, and, in consequence, the dealers make it their business to supply plates to suit them, as the sizes are somewhat different from American makes. For that reason travelers would be wise to take with them a good supply, if using a camera that required, say, 5 x 7 plates. Even 4 x 5 of American make are hard to get. I do not mean to infer that plates made in one country are better or worse than those made in another; there is merely a practical advantage in getting into the habit of using a certain kind so that you may better understand results and their causes. To change from one to another while traveling is of all times the most hazardous. Film cameras are easy to provide for, as the sizes are universal and dealers throughout the Orient carry supplies for them. I heard complaints that rolls were sometimes affected by the damp climate; particularly, that mould spots appeared after development. Though this is not unlikely, I can remember a curious circumstance indicating quite the reverse. A young French diplomat, whose camera had remained unused during an entire year in India, finding the roll of films only half finished, turned off one or two by way of precaution, exposed those remaining, and had the strip developed; to his surprise it was still perfectly good and all the pictures clear. I had only one

plate show mould spots, and that had been in the holder during the rainy season in China and was not developed until quite two months later in Japan. There, as in almost any country, one can now get negatives developed and prints made quickly at very little cost,—not always well done, of course, but that is the case anywhere. Especially during the hot season the sensitive film gets scratched and melted in a way that is distinctly exasperating, but difficult to avoid when it is next to impossible to keep chemicals properly cold. It is under such circumstances that a developing box for films is actually a treasure.

By the northern route the sea journey is cold, but steamer rugs are very little in evidence, as almost everybody joins in the games of croquet, cricket, and bowls, which the officers have so cleverly arranged for ship use. On these Pacific voyages there still remains that friendly atmosphere of settling down to enjoy things that has quite disappeared from our shorter Atlantic journeys, due very much to the fact that there, where the distance from Hongkong to Yokohama is of no more importance than going from New York to Chicago, every steamer carries its little coterie of foreign residents from the ports *en route*, who find this their frequent meeting place.

My 5 x 7 kodak (films) was fitted with only the ordinary lens, such as is sold with that size, and though good in its way, it is, of course, not to be compared with the better grades that are put in when ordered. The shutter was quite quick enough to catch the cricket players in their most excited moments, but the lens hardly equal to such light as one gets beneath the deck awnings.

After the ships leave Kōbe they pass through the Inland Sea, where there are many picturesque temptations for the camera. Their fishing-boats and trading-junks are all novel to our eyes. At sea you have the strongest light available for photography, unless it may be snow, which is so absolutely different in the matter of shadow contrasts that it is not a fair comparison. Using a lens of better grade under the same conditions, it was, of course, necessary to reduce to about one half or even one quarter the full opening.

One is almost compelled into poetic mood as the steamers glide silently on their course through this waterway, for which the Japanese have no name, leaving behind them a widening trail of jade at midday, of copper and blue at sunset. All too soon one arrives at Nagasaki, and the restful charm is dispelled, for there all is noisy activity. The steamship guide-books advise travelers that cameras are not allowed on shore without a payment of customs duty; this is quite misleading, however. It is not a question of money at all; the rules regarding fortified areas are the real barrier, and the punishment is confiscation and possible imprisonment. Foreigners have been subjected to both in Japan. They are the same rules that are found in force elsewhere,—in Russia, Germany, or even on our own Government property,—except that the Japanese are absurdly suspicious and exacting. I thought it would be amusing to see if I could get permission to use mine.

But in less than an hour I was back on the *Empress* and we were off for China. Then, as the steward was kind enough to lend us an empty cabin, and we did not require very much water, developing films helped to pass away one or two afternoons. It is hardly necessary to give directions for this. If a developing box is to be used, all one has to do is to follow the instructions provided, only I may supplement them by suggesting a square of rubber cloth for the protection of table tops. Also, I found that washing the film with several changes of water *while in the machine* cleans it so effectually that immersion in still water for about fifteen minutes after taking out is all that is required when rougher handling would be hurtful because of warm or moist atmospheric conditions. The developer that is put up in packages for use with these boxes gives the very best results, but will make ugly, dark brown stains on everything it touches,—hands, carpets, or clothing.

The most popular cameras are usually those that have gained that position by their merits and the quite natural recommendation of one amateur to another. Undoubtedly those arranged

for films are most convenient, though plates are nicer to handle for printing and possible retouching. A size  $2\frac{1}{4} \times 3\frac{1}{4}$  inches is the favorite; next, a  $4 \times 5$  is attractive, if there is no objection to its weight. Beyond that, the depth of focus in the lens becomes so important a question that constant watchfulness is required and a good eye for measuring distances. I refer especially to the  $5 \times 7$ , about the largest size one would select for a hand camera. Naturally, the extra care required brings its own reward, as large pictures are far more interesting; and although, from beginning to end, the cost of supplies is quite double, they require no more time or effort to develop than the small ones. For use with glass plates I consider the smaller of my two, a  $4 \times 5$ , very satisfactory. It is fitted with an extra good lens which shows everything in clear focus after ten feet, and carries a dozen plates in metal holders which are opened by a lever instead of by lifting up the camera lid to draw and replace a slide. With this I used a good quality of plate which is noted for the delicacy of detail it will retain, and for developing I had prepared powders, made by the same people for the special convenience of travelers.

Speaking particularly of Japan, where I soon returned, the absolutely artistic quality of all their colors gives a landscape in that country unusual harmony. The shades are better than merely *neutral* to my eyes, because each object retains its own color value and yet accentuates whatever other color may be near it. Their roofs are always a bluish gray; the clothing of the common people is always of that same sort of blue, though dark. On the clean roadways their umbrellas and their clogs are the color of the earth, and when houses are not high, and walls play no important part in the landscape, all these gray tones sparkling in the sun give back what Mr. La Farge describes as the silver atmosphere of this artistic spot. The sum of all this is that here the violet rays have great power, which means that one may reasonably expect very good instantaneous photographs. —*Saturday Evening Post*.

# Mosquitoes and Suggestions for their Extermination

WILLIAM LYMAN UNDERWOOD

IT is the purpose of this article to state, in as simple a manner as possible, the facts that are now known regarding mosquitoes and how to deal with these pests, and it is hoped that this information may help to secure a more general cooperation in the work of mosquito extermination.

Few people realize that there are a great many different kinds of mosquitoes. Some three hundred species have already been described, and in the United States there are about fifty species, belonging to nine different genera. The most common of these genera in the northern states are *Anopheles*, the malarial, and *Culex*, the ordinary, mosquito. Of the former there are two species and of the latter at least fifteen.

Only these two genera and the methods for their extermination will be especially considered; and as these methods may also be successfully applied to the other kinds of mosquitoes, no detailed description of the others need be given.

Mosquitoes cannot develop or come to maturity without water in which to live during the first weeks of their "wiggler" existence.

A mosquito's life is divided into four stages, — the egg, the larva, the pupa and the adult insect. In the larval and pupal stages, mosquitoes are more commonly known as "wigglers" (see Fig. 1). Both *Anopheles*, the malarial, and *Culex*, the common, mosquito larvæ are present in this picture. Mosquito "wigglers" may frequently be found in rain-water barrels in as large numbers as are seen in this photograph. The female mosquito lays from one hundred and fifty to four hundred eggs upon the surface of some quiet water, and in a day or two these eggs develop into the larval or second stage (see Fig. 2).

It will be noticed that *Culex* hangs with its head down, and from its tail upward to the surface of the water extends a small tube. Through this tube it breathes. *Anopheles* rests just beneath and parallel to the surface of the water, and its breathing tube is much shorter

than that of *Culex*. These resting positions are quite different, and each is characteristic of its kind. Except when disturbed, *Anopheles* is generally to be found at the surface, breathing and feeding in this position. *Culex*, on the other hand, comes to the surface only occasionally to breathe. It stays below the water for the greater part of the time, and is often found feeding from the bottom.

At the end of a few days the larvæ change into the pupal or third stage (see Fig. 3). To the left is seen the larva skin out of which this pupa has just come. The difference between *Culex* and *Anopheles* in this, the final stage of "wiggler" existence, is very slight. Both now live at the surface of the water, and they breathe through two funnel-shaped tubes situated one on each side of the thorax, or "head." Unless disturbed, they remain motionless in this position at the surface until the time comes when, as adult mosquitoes, they leave the water (see Fig. 4). This is the critical period of a mosquito's life; for should the surface of the water be disturbed at this time, the insect would be upset and drowned. It takes about seven minutes from the time when the skin along the back of the pupa begins to split until the full-grown mosquito comes forth and in a few minutes is ready to fly away. A mosquito never grows any larger after this change.

The length of time required to pass from the egg to the adult insect varies from ten days to three weeks, according to the temperature. Warm weather hastens their development, while low temperature checks it. The "wigglers" of some species of mosquitoes live through the coldest weather of our northern winters unharmed, ready, when the first warm days of spring have come, to complete their natural changes.

Most of the mosquitoes that annoy us are bred near by, often, though unknown to us, in our own dooryards. Any water that is accessible to mosquitoes and whose surface is undisturbed by winds or rapid currents furnishes a breeding-



APRIL  
BY J H FIELD

PHOTO  
ERA



THE CALF PATH  
BY A S GOSS



PORTRAIT  
BY GERTRUDE KÄSEBIER

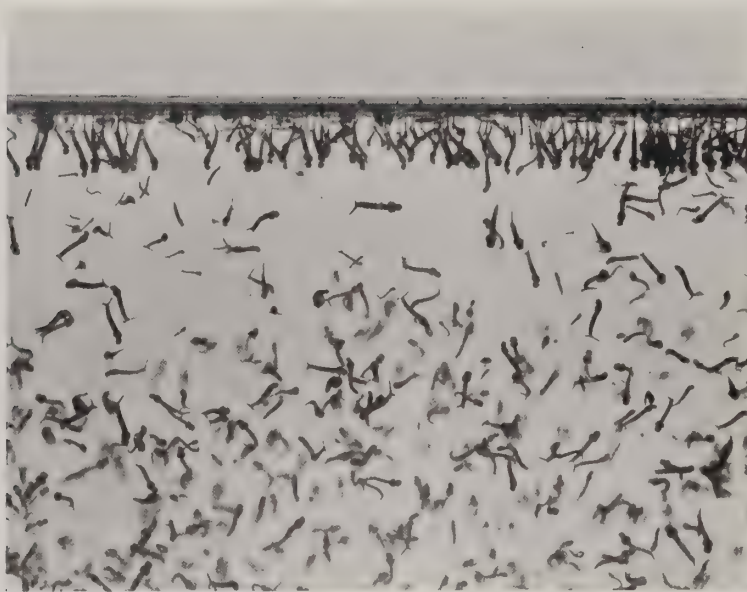


FIG. 1.—Mosquito "wrigglers" (larvæ and pupæ) in the water. Life size.

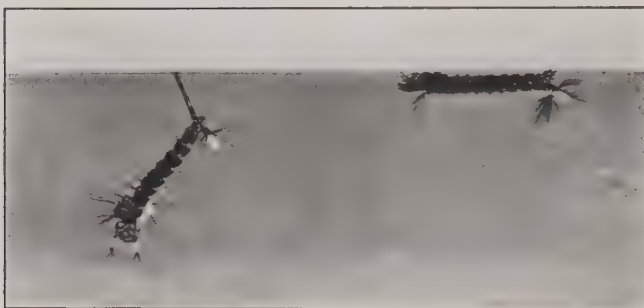


FIG. 2.—Mosquito "wrigglers" (larvæ) in the water. *Anopheles* larva to the right, *Culex* larva to the left. Three times as large as life.

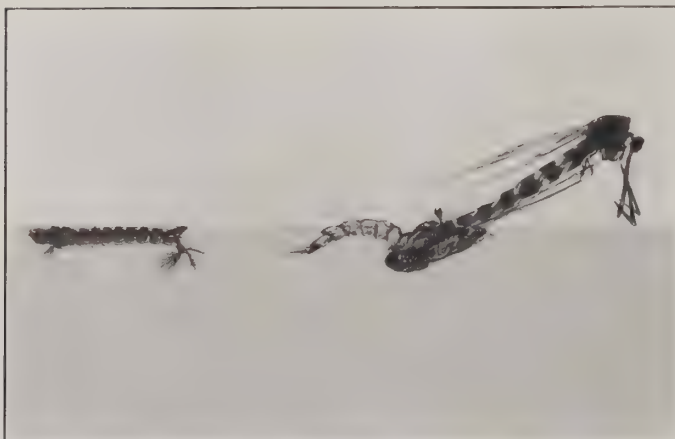


FIG. 4.—An adult mosquito (*Anopheles*) transforming from a pupa and coming out of the water. Three times as large as life.



FIG. 3.—A pupa, the third stage in a mosquito's life. Three times as large as life.



FIG. 5.—Profile of *Anopheles punctipennis* (female). Three times as large as life. Showing the characteristic resting position of this mosquito.



FIG. 6.—Profile of a *Culex* mosquito (female). Three times as large as life.



FIG. 7.—Profile of a male *Culex* mosquito. Three times as large as life.

place for them, and "wigglers" may often be found in water standing in old tin cans or bottles, in rain-water barrels, in pools in the rocks, in roof or street gutters that are not properly drained, in cesspools or in catch-basins, in fact, in any place that will hold water for a week or two, no matter how small the quantity, even if only a few teaspoonfuls.

Since we know that without water mosquitoes in their first stages cannot exist, it naturally follows that all standing water should be done away with or treated in such a manner that "wigglers" cannot live in it nor mosquitoes get to it to lay their eggs. To this end all cans, bottles, and every discarded utensil that will hold water should be removed. All stagnant pools, where it is possible to do so, should be drained or filled up. Cisterns, rain-water barrels, and cesspools should be screened or otherwise covered to prevent the adult insects from having access to them. Where it is not practicable to fill, drain, or screen the places that are suitable for mosquitoes to breed in, the surface of the water may be covered with kerosene oil. This oil, when spread over the water, prevents the "wigglers" from getting air when they come to the surface to breathe, and so kills them.

An ounce (two tablespoonfuls) of kerosene will spread over fifteen square feet of water surface, forming a film thick enough to kill all the "wigglers" that are beneath it. Kerosene of a cheap quality, known as high test light fuel oil, is preferable for this purpose. It can usually be bought at eight cents a gallon. If oil of this quality is not available, ordinary kerosene will answer the purpose. It should be applied as often as once in two weeks, for by that time the previous application will have evaporated. A sufficient quantity should be used, in the proportions named, to cover completely any place that may need treatment.

Any one who is ill with malaria or yellow fever should be carefully protected from mosquitoes; for should a person be bitten by an *Anopheles*, the malarial mosquito, or *Stegomyia fasciata*, the yellow fever mosquito, at this time, there would be great danger that the insects might fly away and bite some one else, and thus spread these diseases. Screens for both doors

and windows form the best protection against mosquitoes at all times; but it often happens that the insects get into our houses, even though they are thoroughly screened, generally through some door or window that has been left open by mistake, or they may gain an entrance by coming down an unused chimney if the flue is allowed to remain open during the summer time. A house or a room may be cleared of mosquitoes by burning pyrethrum powder and allowing the smoke, which is not at all offensive to most people, thoroughly to fill the room that is under treatment. This smoke kills or so stupefies the insects that they will not bite. Pyrethrum powder is a preparation of the plant *Pyrethrum roseum*, and is sometimes sold as Persian Insect Powder or Dalmatian Powder; it can be bought at any drug store for about thirty-five cents a pound. It is a very fine, light powder; and a pound of it will go a long way, making a large volume of smoke. A pyrethrum smudge or smoke may be started by covering a live coal, taken from the kitchen stove, with the powder, first placing the coal upon a small shovel, so that it may be moved about conveniently without danger of setting anything on fire. The pyrethrum will quickly begin to smoulder and give off a dense smoke. All that is now necessary is to add from time to time a pinch of powder as occasion requires, merely keeping the smouldering ashes covered so that they will give off a smoke. People are frequently annoyed and sometimes driven into their houses on summer evenings by the persistent attacks of mosquitoes. On such occasions, pyrethrum powder can often be used to advantage; and the smoke from a small quantity of the powder kept smouldering upon the piazza will drive away most, if not all, of the pests, thus making it possible to enjoy an evening out of doors in comfort, when otherwise life would be unbearable except behind the protection of screens.

The *Anopheles*, or malarial mosquitoes, though not very common (see Fig. 5), are breeding abundantly in many parts of the United States; and by referring to the accompanying photographs, particularly the ones in profile, it will be seen that there is quite a difference between the malarial and the common, or *Culex*, mosquitoes.

*Anopheles* may easily be distinguished from the common or *Culex* family of mosquitoes by the spots upon their wings, and also by the position which they take when at rest (see Fig. 5).

Notice the angle at which the insect shown in Fig. 5 stands out from the wall. Compare this with Fig. 6. It will also be seen that the proboscis, or "stinger," and the body of *Anopheles* form a straight line, while the *Culex* is rather humpbacked. The other *Anopheles*, *maculipennis*, does not stand out from the wall at quite such an angle as does *punctipennis*; but like the latter its proboscis and body form a straight line, and the angle formed by the insect when at rest is much greater than that of the *Culex*.

Notice how different is the resting position of the *Culex* mosquito in Fig. 6 from that of *Anopheles* in Fig. 5.

The male mosquito (see Fig. 7) never bites. He may be easily distinguished by his large and feathered antennæ and palpi, which are very much more prominent than those of the female.

There is another mosquito, *Stegomyia fasciata*, which in form and habits closely resembles *Culex*, in which genus, until quite recently, it was classed. *Stegomyia fasciata* is the yellow fever mosquito, and it inhabits only the warmer portions of the country. It is common in most of the southern states and is seldom seen north of the Carolinas. It is easily distinguished from other mosquitoes by the conspicuous silvery white stripes upon its thorax and abdomen, and by the white bands upon its legs.

Fortunately for mankind, Nature herself provides many energetic workers which are constantly doing their part towards holding in check these insect pests. Foremost among these natural enemies are many of the insectivorous birds, which daily destroy many thousands of mosquitoes. The swallows, the fly-catchers, the night-hawks, and the whip-poor-wills, all are insect exterminators, whose good work in this connection is seldom taken into account. The bat is also an efficient mosquito hunter; so, too, are the dragon-flies which frequent the shores of ponds and pools where mosquitoes breed.

Besides these enemies of the adult mosquito, which may properly be called their "foes of the

air," mosquitoes have other adversaries which destroy them in their early stages. These may be termed their "foes of the water."

It often happens that we can find no "wigglers" in small ponds in which we would naturally expect to find mosquitoes breeding. In such ponds the presence of fish may account for the absence of mosquitoes. Their larvæ furnish food for many species of our smaller fishes, and by them myriads of mosquitoes are annually destroyed. Goldfish are particularly fond of mosquito "wigglers," and one pair of fish was seen to eat ninety-eight "wigglers" in four minutes. Goldfish will live and multiply in almost any small and shallow pond where the water is warm. They are perfectly hardy and will thrive just as well and perhaps better in stagnant water than they will in flowing streams.

A few words as to the illustrations. To obtain the pictures of the adult insects I made a small glass cage about an inch and a half high and wide, and half an inch deep. The mosquito was placed in this enclosure, and the cage was placed in strong sunlight, or the light was thrown upon the insect with a mirror. I used an ordinary 7-inch Goerz lens, stopped down to F 43, and the pictures were secured with a minute's exposure. It would seem at first thought that it would be impossible to get a mosquito to stand still for a minute, but under the right conditions of temperature it can be accomplished. The pictures of the insects in profile were made with a larger stop, and only a few seconds' exposure. In all cases my original negative showed the insect twice the natural size. The photographs of the "wigglers" in the water were made with flash-light, and the insects were confined in a small glass cell, the inside walls of which were about an eighth of an inch apart. This kept the object to be photographed in constant focus. With stop F 16, one eighth of an ounce of Luxo powder fired in an Imperial flash-gun held sixteen inches from the glass cell gave the required light. This branch of photography is not at all easy, and requires considerable patience, and a good supply of plates. All the pictures were taken on Cramer Crown plates, and developed with the maker's pyro-soda formula.

# In the Swamps with a Camera

JOHN BOYD

THE swamps and marshes have an attraction for the artist-photographer who wishes to include their general outlines in his compositions; but neither he nor his more plodding brother,—the nature-camerist,—have yet shown us one thousandth part of their true beauties, surrounded as they are by green banks of rushes, that mark the margins of the elastic shaking surface of bog moss, and lead to the cool, oozing, stagnant water of the inner channels.

There the pitcher-plants grow in abundance, their hollow leaves almost always full of water awaiting their insect victims. The dainty white buttercups peer up here and there, seemingly steadied by the great leaves which lie beneath the surface of the water. The pads of the water-lilies form a causeway for the rails and mud-hens, and the white and yellow flowers invite us to pluck them, stems and all, from their watery beds. The arrowhead stands up in graceful elegance; and amidst its background of rushes it offers, with its delicate flowers, a pleasant study for the photographer.

Such are some of the flowers that inhabit these almost inaccessible spots, and from them we pass on to the life that abides among the hidden masses of vegetable growth. We note the Virginia rails, those graceful water-nymphs, by whose nest we can linger hours, in the hope of picturing it and its owners, as they shyly return to their precious charge. The mud-hens cackle as they feed, and at times can be approached near enough for a passing snap-shot. The marsh and red-winged blackbirds hang sideways from the tall rushes, and resent with long-drawn screeches intrusion on their domestic affairs. Up in the shallow part stands a great blue heron, his position as rigid as a steeple; there he waits the passing fish or frog, and with care he is readily pictured in his home haunt. The American and the least bittern are likewise capable of being approached, especially the former, who is at times so stupid as to permit being touched with the oar or paddle. The

turtle on his log, and the frog by his heap of mud, are the best of subjects; and even the sinewy water-snake will hold his little head above the water long enough to permit his picture to be taken.

One could go on thus for pages, but what is the use? The marshes are there, and we have but to invade them to find all the subjects we may wish.

The preparations are simple, but they should be made carefully if we would work in comfort, and attain the best results.

The tripod must be given particular attention, as in the matter of time exposures we have to be ready to make them in water two to four feet deep; or again, near or on the land, where we need only the height of a few inches. When working in a bog or water, I find it a great help to attach three triangular pieces of board, about six inches each way, to the bottom of the legs. This prevents the points from sinking in the ooze, and gives a solidity to the tripod when it is carrying the weight of the camera. For working on the pitcher-plants, a frog, or any subject that requires a low support, I have a home-made affair, some two and one half feet in height, made of three pieces of bamboo, attached permanently to a solid head. This, when extended, will permit the camera to come within a foot of the ground, and is a valuable help in placing the camera at the correct height.

A pair of rubber boots coming to the hips is a necessity; and if we can supplement them with a canoe or small rowboat, we can often reach the desired spots more quickly. This is also useful as a "tender," when working in the water, as it floats where we want it, and carries all our impedimenta to the scene of action.

The greatest care must be taken of the camera, lens, and holders, when working in the water, and one should make it a rule never to act hastily. It is well to see that every portion of the outfit is made secure before taking hold of the next, otherwise one may find that a valuable lens or some other part has dropped out of

sight into the slimy mass on the bottom, where the chances of recovery are slight.

The subjects we have to deal with are always on the move, the birds and animals being restless, and the flowers and plants ceaselessly swaying to and fro ; so we shall have to make quick exposures, and I favor nothing slower than one tenth of a second, except it be for turtles, frogs, or snakes, basking on a log in the sun. The lens should, therefore, have as full a covering power as possible, so that correct definition may be had at the larger openings.

The plates should be of the fastest, combining non-halation and orthochromatic qualities, to supplement the action of the lens in the correct rendering of detail and color values.

I am a firm believer in the utilization of our brains, instead of our dry plates, in all classes of nature work, and favor counting the results, not by the number of exposures we are able to make, but by the class and quality of the fewer subjects we gather from time to time. Don't spare yourself in obtaining the best possible result from whatever you have set out to picture ; have your wits about you at all times ; know what you want ; take it when it comes, for if you don't you will regret your indecision ever afterward. Cultivate the habit of striving to excel ; cherish the thought of outdoing all others in your particular field ; be honest in your work, and methodical in your actions, so that spoiled plates will not be your reward for days spent in the healthy pursuit of capturing the images of Nature's children.

For backing our plates we can use any one of the many mixtures, — some of which are good, others nasty and sticky. The best is the E. W. N. compound. If this is not available, the following mixture is readily prepared, being made of simple ingredients, obtainable anywhere :

Water	. . . .	10 ounces
Gum	. . . .	1 ounce
Powdered burnt sienna	. . . .	1 ounce

It is brushed over the back of the plate with

a stiff brush, the drying being accelerated with a fan. After exposure it is removed with a moist tuft of cotton before being put in the developing tray.

For developer, I believe in following the maker's formula, as he is most likely to compound a solution that harmonizes with his plates.

A one-solution developer that has found much favor, and which works nicely on many of the standard plates, is made thus :

Water	. . . .	1 quart
Metol	. . . .	3-4 ounce
Sodium sulphite	. . . .	7 ounces
Potassium carbonate	. . . .	3 1-2 ounces
Potassium bromide	. . . .	1-10 ounce

This has good keeping qualities if placed in small bottles, and kept well corked.

Of the printing little may be said, — it is largely a matter of choice ; but if you want your results to show beauty, atmosphere, and be a joy forever, use platinum. It is, of course, more expensive than printing-out and development papers, but its permanence and other qualities compensate for the difference in price.

It is not difficult to use, as some seem to think ; still, there are a few precautions that must be observed in order to get the best results. Do your printing on a dry, clear day ; examine the prints in a weak yellow light, or you will veil the whites. Always use a rubber pad to back up the paper while printing. Print, if possible, in the shade. Keep your developer of good strength, and at a temperature of 80 degrees. Use plenty of the acid fixing-bath. Full information is given with the paper ; read the directions fully ; carry them out faithfully ; and if you do not have nice prints, look first to yourself to see if you have not disregarded some of the instructions. If you are sure you have not, then write to the makers, enclosing one of your own prints and a marked piece of unexposed paper. They will either make you a good print, telling you where you have failed, or send you another lot of paper.



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BY RALPH E BROWN



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BY MATHILDE WEIL



THE HEAD OF THE LAKE  
BY C F CLARKE

PHOTO  
ERA



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ON THE CHICAGO RIVER  
BY WM P GUNTHERP





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ADVERTISING RATES ON APPLICATION
Vol. XII MAY, 1904 No. 5

The first of May! Woods, and a rocky shore;
South winds from Eden o'er a sea of glass,
Earth velvet carpeted with emerald grass;
The wooded ground with wild flowers spangled o'er,
Anemones, hepaticas, and store
Of yellow adder's-tongue, and violets blue,
And clustered pepper roots, besprent with dew,
And bloodroot's spotless chalice, pure from gore,
And frail beauties, delicate and sweet,
And nodding columbine with scarlet glow,
And countless things all bursting into blow,
The vernal queen of all the year to greet.
-TAYLOR.

Landscapes and Flowers Small, indeed, must be the soul of the artist photographer who has no welcome to extend this magic month of May, when all nature is being born anew. The earth is robed in garments of tenderest green, carpeted with flowers, and the air is filled with languorous blossom scents. The picture given above in the lines of the poet of a May landscape ought to serve as an inspiration and help to the imagination of the photographer. Flowers and landscape studies direct from nature are the pictures most sought

after this month. Simple pictures showing good composition, beautiful and proper space relations, expressing fully the essential features, and omitting uninteresting detail, — these are the qualities that make for true art in a landscape picture. Art springs from the imagination, and in making landscape photographs there is splendid opportunity for the exercise of this faculty. The development of part of a landscape into something quite different in spirit from that of the landscape itself is wholly legitimate and carries out and sets free the spirit. The consciousness of a power to create is always inspiring to any worker.

In flower studies, the efforts should be to express the beauty and life of the flowers as near as possible on the photographic plate. To this end, the art of flowerarrangement should be carefully studied. In Japan, it is said, this art is as highly regarded as music, poetry, or painting, and quite as much time and study is deemed necessary to master it, as for any other form of art. "The arrangement," according to Worres, "is usually based on three lines, rising gracefully from the neck of the vase. The center or principal line should be the longest, the second one half, and the third one fourth of the length of the first. These stem lines are not allowed to cross each other in a way to form angles, nor permitted to run in parallel lines."

American Photography at St. Louis The Louisiana Purchase Exposition has been formally opened. There has been a good deal of nagging criticism of the officials of the fair, and the usual crop of jealousies and quarrels has been reaped. "That is the way the fairs begin," says the New York Sun; "a lot of hard work — for three years in this case — and a reasonable amount of friction. But the show is open to the world; and the world will go to see it. Several thousand kinds of education and brands of enjoyment are to be had there; and the 'knock' of the 'knocker' should be hushed. We wish all prosperity to the exposition. May it be not unworthy of what it commemorates!"

We should like to be able to keep these words standing until they sink deep into the minds of

some of our Photo Secessionist friends, who have furnished their share of knockers and are still knocking.

In a recent issue of the *Amateur Photographer* (London) Mr. Alfred Stieglitz rises to inquire "Why it is, that with the press, the great photographic professional world, and the many camera clubs and photographic societies all on one side, and the Photo Secession alone on the other, that when the Photo Secession remains neutral and passive in St. Louis, the American photographic pictorial exhibition at St. Louis promises—unless something unforeseen happens—to be a dismal failure, notwithstanding the hubbub and the large amount of advertising done by and in the majority of the photographic press? What does it all mean?"

"Possibly," he adds, "the Secession's attitude may seem preposterous to the English and to the French; indeed, it has been so asserted."

The average sane mind is pretty much the same all over the world, and a thing that is preposterous in England and France is likely to be the same in America. But the point we wish to call attention to is that the World's Fair has been opened on time and that experts have been appointed to select and hang the best specimens submitted for the photographic exhibit.

The members of the jury of selection of photographs submitted for exhibition in the American photographic department of the Liberal Arts Building are Messrs. George Nussbaumer of Buffalo, Curtis Bell, president of the Metropolitan Camera Club of New York City, and F. Dundas Todd, of Chicago. Furthermore, they report that they will have an excellent exhibit, as there is plenty of material to select from; and as they have been instructed to preserve a very high standard, it has caused them to discard an unusually large percentage of the photographs which have been submitted from every State in the Union. They will divide the exhibit into two principal classes,—pictorial photographs and photographs which display technical skill in production. Besides these classes there will be another, composed of colored photographs and photographs of subjects of outside interest.

There will be about 100 photographs in the pictorial section, and about 150 in the technical

section. The number of photographs in the other section has not been determined.

We are calmly waiting, with no serious misgiving as to the result.

### *English Photography at St. Louis*

There can be little doubt but that English photography will be better represented at the World's Fair than that of any other country. Although the same divisions of opinions exist between the Linked Ring and the Royal Photographic Society of London, for instance, as between the so-called Photo Secession and the representative camera clubs of America, nevertheless our English cousins have the saving grace of good sense and rare civic pride, when their country's honor or the honor of their beautiful art is in question. On this particular occasion, whatever their individual preferences may have been, they have sunk their private differences and have fallen to, as a unit, and with a right good will, to make the exhibit of English photography at the World's Fair a grand success.

Sir William Abney, President of the Royal Society, is the Chairman of the Commission, and is specially charged with the scientific section; Sir Benjamin Stone has the historical record and survey prints; while a special committee, including Messrs. A. Horsley Hinton, George Davison, and Reginald Craigie, have charge of the pictorial section of the English exhibit. Over 900 frames will be hung in these three classes.

Mr. Horsley Hinton, who is now in St. Louis to superintend the hanging, describes in a recent issue of his paper, the *Amateur Photographer*, of London, how the selection of pictures was made. "As far back as last summer, Sir William Abney called on me. He also communicated with Mr. Geo. Davison and Mr. Reginald Craigie. We met several times, and after going carefully through the 'Royal' and the 'Salon' catalogues for the past few years, we drew up a list of some 300 odd pictures which we thought representative of British pictorial photography. I issued the invitations and grappled with the resulting correspondence,—a big job, but I cheerfully undertook it, as well as that of arranging the space, devising designs, and choosing

material for the wall decoration, and so forth. It was a distracting and fatiguing task for a man already sufficiently busy," he modestly adds, "but some one had to do it." And then he sums up in a few words the motive which actuated the commission, and which ought to be printed in letters of gold: "*The purpose being to show what British photography is doing — not to advertise or exploit individual British photographers. We have not tried to represent every pictorial worker.*"

Such sentiments as these show a breadth of mind and a conception of public duty that is truly commendable. It means the assured success of any enterprise, whether it be the selection of a representative photographic exhibit or the sale of shoe-strings. We heartily wish there were some Horsley Hinton among the pictorial workers in our own country. It would make the yoke sweet and the burden light for those who are battling for the success of pictorial photography in America.

**Our New Contemporary** On the 30th of April occurred an incident of some little moment to those responsible for it, and one, in their opinion, calculated to probably cause a big splash in the puddle of photography: to wit, the initial leap into publicity of the *New York Photographer*, a new weekly periodical. A slight ripple was observable in the quiet back reaches of Fall River, Mass., where the leading photographic dealer found a batch in his mail, sent on suspicion; but a diligent search of the six leading supply stores of Boston failed to reveal that the new infant had even been heard of. Not having been favored with a copy for review, we made strenuous search, and finally secured our prize by great good fortune, express collect from Fall River. What was our joy to find that the PHOTO ERA figured in its columns four times, equally divided between attacks on our knowledge and quotations from our articles. 'Tis better to be attacked than to be ignored, from the point of view of publicity, and so we feel too happy to notice seriously the animus of the able editor Abel.

The editorial announcement is: "We are building this journal, not for any one school or class

of photographers, but for the greatest number." Maybe, perhaps 'tis true, but lurid writ between the lines and at the bottoms of the articles we note the magic word "*Secesh*" on every page. The pictures reek with it, save one made by a shutter-maker. Those laid out for constructive criticism make even the trained art-critic admit that he can "only gradually discover" their beauties, much less analyze their component parts. The ordinary observer can but look and wonder. We might proceed, but why? We were young once ourselves, and we hope we have improved. Yet there is room for the right kind of photographic weekly, and we welcome this newcomer to the field, extending best wishes for its success.

**The Edition de Luxe** The May *Édition de Luxe* of the PHOTO ERA will be an especially attractive number. The pictures will all be mounted on papers made by the Niagara Paper Mills, of Lockport, N. Y. This progressive firm has, during the past year, paid especial attention to the manufacture of papers particularly suited for mounting photographs. Among their recent achievements, which is a triumph of American industry, is the production of a line of papers called "*Italia*." This is the successful reproduction in this country of the hand-made charcoal papers of France and Italy, and the various shades are peculiarly suitable for mounting purposes. These are well represented in the number, as well as various colors of Royal Melton, Homespun, Sultan, and other cover papers. The name of each paper will be found under the print, and any of them may be ordered by name from the PHOTO ERA office.

**The Photo Era Trip to Europe** We would again call the attention of our readers to the opportunity for photographic and artistic study, as well as sight-seeing in the most attractive and historic parts of Europe, offered by our tour this summer. There are still some vacancies, and we would like to relieve any reader who may be planning a European trip, of the manifold petty details and annoyances that beset the inexperienced traveler by enrolling him or her in our party.

## Our Illustrations

OUR frontispiece this month is an excellent example of the portrait work of Mr. F. Holland Day. This head is broadly and convincingly treated in a manner wholly free from affectations. It shows a skilful arrangement of tones in masses, reduced to the smallest possible number. The rendition of character is convincing, and it is impossible not to be interested in the subject. The half-tone reproduces a portion of the mount, a combination of very light papers.

"April," by J. H. Field, is an extremely characteristic piece of this artist's landscape work. Mr. Field has a feeling for nature, especially in her somber moods, which leads one to predict that he will produce great works in this line.

"The Calf Path," by A. S. Goss of Toronto, a reproduction from a bromide enlargement, shows pleasing simplicity of composition, with an attractive mystery in the goal of the path. The horizontal repetition greatly strengthens the vertical panel.

Mrs. Käsebier's "Portrait" shows skilful subordination of all details to the point of principal interest, the face, with the hands as subordinate spots to balance the picture.

Ralph E. Brown's poplars are admirably situated to produce a strong effect by vertical repetition of line. The background is well chosen to avoid halation, and the whole effect is that of a pleasant, cool retreat.

Miss Weil's picture, "Soap-bubbles," is a charming picture of child life. The poses are unstudied, and the bubbles show that a very short exposure must have been given. The rendition of sunlight is the most successful that has ever come to our notice.

"The Head of the Lake" will be familiar to the readers of the *édition de luxe*, as it appeared in the January number in the form of an original Eastman Sepia print. The beauty of the clouds reflected in the still water makes a very successful picture out of a not especially attractive scene.

Mr. Powers' portrait is a successful piece of straightforward work, and is a good example of

what can be done by any amateur at home, with careful work.

"On the Chicago River," by William P. Gunthorp, an excellent example of the marine work possible on our inland seas, has been exhibited at the third San Francisco and the Fourth Chicago Salons.

Mr. Cross' picture of the trailing arbutus, the New England mayflower, is remarkable in that the half-tone block is made directly from the flowers. This is an innovation in flower photography which is capable in skilful hands of producing important results.

Miss Hovey's charming study, "The Picture-book," is a good example of a class of work in which she is very successful,—the portrayal of children. The rapt attention on the subject in hand gives proof that the children were wholly at ease, a prerequisite in such portraiture.

The charming New England homestead in winter garb, entitled "Gray Days," figured in the recent exhibition of the Providence Camera Club, and was universally admired as a bit of snow work. The feeling of the lowering sky is finely rendered, and the picture is technically and artistically elegant.

Mr. Schuler's picture is an excellent example of pyramidal composition and diagonal division of light and shade, closely conforming to classic rules. It is also excellent in pose and expression.

In the next picture, "Coming from the Spring," we have a good piece of genre work on somewhat conventional lines, but well executed. The setting for the figure is attractive, and the picture has an air of verisimilitude which is not always present in work of this class.

"A Day in June" is a pleasant landscape, well composed, well supplied with sky, and well balanced as to light and shade.

Mr. Goss' "January Thaw" admirably shows a fine atmospheric effect, well rendering the sloppiness and murkiness inseparable from this climatic condition, when there is an enormous amount of evaporation. The arrangement of the vertical lines is good. The foreground is possibly a little prominent.



CHILD STUDY  
BY JOHN W SCHULER



COMING FROM THE SPRING  
BY WM H WHITEHEAD



A DAY IN JUNE  
BY L. C. RANDALL

PHOTO  
ERAT



THE JANUARY THAW  
BY A S GOSS

# The Round Robin Guild

Specially designed for the Amateur Photographer and the Beginner

Conducted by Elizabeth Flint Wade

(Any amateur photographer may belong by sending in his name and address)

## USES OF ADVERSITY

"A daisy and a berry red  
Were nodding in the breeze;  
Said the daisy to the berry red,  
'Oh, what if it should freeze!'  
'Well,' said the berry, 'you would die,  
But my fate would be nice;  
For I should then be served, you know,  
As a Strawberry Ice.'"

To utilize or turn to account one's misfortunes and accidents marks the true philosopher. The first thing which the amateur tries to utilize is his spoiled negatives. One of the most satisfactory ways of using them is to free them from the blackened silver, resensitize them with blue-print solution, then make from them transparencies. The formula was given a year or two ago, but having many requests for it, we repeat it for the benefit of our enlarged circle of Guild members.

To free the plate from the blackened silver, make up one solution of ferricyanide of potassium, 1 oz., and water, 8 oz.; and another solution of 2 oz. of hyposulphite of soda and 8 oz. of water. Mix in equal quantities and leave the plate to soak in it until all the blackened silver is thoroughly eliminated from the gelatine coating. The plate is then washed in running water for half an hour, and dried in a place free from dust.

The solution for sensitizing is the same as that used for sensitizing blue-print paper,—1 3/4 oz. of citrate of iron and ammonium dissolved in 8 oz. of water, 1 oz. of ferricyanide of potassium dissolved in 8 oz. of water. Lay the plate in a tray, gelatine side up, and turn over enough of the solutions mixed in equal quantities to cover the plate; let it soak for five minutes, drain, and dry in the dark. The process of sensitizing must, of course, be done by gaslight.

To print, the sensitive surface is placed in contact with the film, adjusted in the printing-frame, and exposed to sunlight for the same length of time as for a blue-print. To gauge the time of exposure,—for of course the print cannot be examined to note its progress,—a print is first made on a piece of blue-print paper, the length of time it takes to make a proper print noted, and the plate exposed for the same period. When finished, wash in running water, and dry.

One may use these transparencies in decorative ways. Set in a long narrow frame, with just a narrow division between each picture, they make a pleasing ornament to set on a window ledge or at the top of the dividing sash. They make pretty lamp screens, little square lanterns, trifle boxes, etc., and are always interesting as

a window transparency. Much depends on the choice of subject. A landscape is not so pleasing as marines or figures. Seacraft is always a happy selection for a blue transparency. An enthusiastic Gilder, who has been using the above formula, writes, "My blue transparencies are beautiful. I am hoping to spoil some plates soon again, so I can make some more."

While the amateur is not advised to spoil plates for the purpose of making blue transparencies, still, if he has spoiled plates, he will find this a most satisfactory way of turning them to account.

Have you seen a copy of the "Practical Photographer"? If not, then you have a pleasure in store. The "Practical Photographer" is an English magazine, each number of which is devoted to some special phase of photographic work. The PHOTO ERA—as elsewhere advertised—has secured the rights of this magazine in this country and last month published the first number of this admirable series of treatises on photography. The number in question is devoted to directions for trimming, mounting, and framing photographic prints. The amateur learns from it how to hold the knife in trimming, what trimmers are the most practical, how to make square corners and secure parallel edges, what to trim away, and what to leave in a print. On the subject of mounting nothing seems to have been omitted that could be of help in this particular line. Mounts are described and the kinds suitable for certain prints designated. One learns about the color, surface, tone, the proper placing of the print, how to do wet and dry mounting, to mount by edges, and how to make the "built-up" or composite mount. The suggestions on how to mount small prints are specially good. Any one at all handy with tools will be able to follow the directions for frame-making which he will find in this number, and will be able to turn out some very artistic frames, and better suited to his pictures than those found in the shops.

Perhaps the best thing about this magazine is its profuse illustrations which supplement the text, so that one might almost learn by the pictures without the explanation. Some excellent formulas are also given.

We quote one of the "Maxims on Mounting":—

"Composition is of as much importance in the placing of the print on the mount, as in the placing of the principal object in the picture. Even the size, design, and whereabouts of the artist's signature must be considered in relation to the picture, its position on the mount, its color and subject. In this connection the signature of Japanese

artists may be studied with profit. Their placing is often a small tour de force of composition in itself, and is as truly the result of study as the picture to which it is attached."

If any member of the Guild wishes to have a useful hand-book, and to learn all the newest and best about mounting photographs, he should buy the April number of the "Practical Photographer." The mounting of a photograph now demands as much attention as does the making of the print, and a suitable mount doubly enhances the beauty of a picture.

"This year's May the last year's May repeats" and brings us again the buds and blossoms, and all the fresh delight of green things growing; and it is these same green things growing that make the prettiest sort of decorations when made into "white silhouettes" on photographic paper. The young and delicate leaves of wood plants are specially adapted to corners and borders, as they are usually small and fine. Young ferns, the little "mouse-ear," herb robert, one-berry, small, slender adder's-tongue, Solomon's seal, wild geranium, etc., all have very beautiful-shaped leaves. The young leaves of trees, especially the pinnate leaves of the locust and sumac and the leaves of the birch are all to be sought for when looking for green things for making decorative prints. In making these prints one may use either blue-print paper or the matt finish printing-out paper. The leaves are grouped on a sheet of plain glass in the printing-frame, the paper adjusted over them and exposed to the sunlight until the blue-print paper is a deep bronze or the matt surface paper quite black.

A novel print of this kind is made by arranging the leaves in the center of a vignetting glass, the result being a border shading from white up to the black center on which appear the white outlines of the leaves. Such a print can be used as a negative and a reversed order of the tones obtained. The early leaves of spring make the most satisfactory leaf prints, as their tissues are so transparent that one obtains in the print the fine veining of the leaf which in later summer, when the leaves have turned a dark green, scarcely appear in the print. The blue-prints are washed in water until the whites are clear, while the silver prints are first washed to clear the paper of the free silver, then fixed for five minutes in a solution of hypo in the proportion of one ounce of hypo to ten of water. These prints may be used in a variety of ways, the arrangement of the leaves or vines lending themselves to borders, corners, etc. A frieze of blue-prints placed just above the wainscoting in a child's room proves a great attraction. The child, seeing it every day and being told the names of the leaves thus pictured, unconsciously acquires a knowledge of wood plants which he might never have the opportunity of doing, or at least would need a great deal of study to learn.

"When all the woods are green," and while the green is still of light and delicate hue, is the time to make photographic studies of trees. Trees, for the most part, have been a neglected subject by amateurs, but trees make most interesting photographic studies.

Nearly every locality has its tree patriarch, and trees of historical interest are found in many places, especially through the New England States.

One would find a collection of "tree photographs" interesting to make and a source of pleasure to all who had the good fortune to see it. Then a collection of tree photographs would be in a way an edition de luxe, for they would not be duplicated, and the artist could limit his edition to as few copies as he chose to make.

To add to the interest and the value of the book, one should supplement the pictures with a legend or two about each tree, or with an appropriate quotation. Tree lore, when studied in connection with one's photographs of trees, will be found very fascinating.

The gift of trees is one which is but half appreciated, and "it is harder to replace the living cone of a tree, than to build a granite obelisk." Who of us ever thought of giving thanks for a tree? and yet this is what the East Indian does for the palm tree which is to him house, and raiment, and food, and wine.

"Allah il Allah!" he sings his psalm,  
On the Indian sea, by the isles of balm;  
'Thanks to Allah who gives the palm!'

Latter in the season we are going to offer prizes for the best and most artistic photographs of trees, for this is one of the future subjects of our Round Robin Guild competitions. Hence these hints on making good photographs of trees in the early summer, the best time of the year for tree pictures. The amateur who makes a study of trees will be well paid in the pleasure and profit he will derive from the study.

#### WATER-TONE PAPERS

For a long time blue-print paper was the only water-tone paper on the market, though from time to time attempts were made to produce a paper that would give gray or black tones which would develop or fix in water in the same way as the blue-print paper. "Never say fail" is, happily, one of the watchwords of photographic chemists, and by and by the experiments were successful, and we now have water-tone papers which produce very beautiful prints.

The Eastman Sepia paper is one of the favorites. The paper is heavy and has a very rough surface, so it is not adapted for negatives with fine detail, or for small landscapes. It is specially suited to portrait work or for landscapes showing broad masses of lights and shadows. This paper prints very quickly, and the printing is carried just far enough to show the details indistinctly.

To insure best results, the prints should be developed as soon as taken from the printing-frame. To develop the print, it is dipped into running water or into a dish holding quite a quantity of water until the print is developed, the time required being less than half a minute. As soon as the print is developed, it is placed in a tray of hypo, face down, and kept moving for a minute or two to prevent air bubbles forming on the surface. Where an air bubble forms, there appears an ugly brown stain, and this of course spoils the print. The hypo solution

is made up of five grains of hypo to four ounces of water. A convenient way of measuring the amount is to use the powdered hypo and take up as much as will lay on a ten-cent piece, which will be about five grains. The print is left in the hypo for five minutes, then washed well in running water. The tone of the print is varied by leaving it a longer or shorter time in the hypo. The shorter the time the redder the tone, and a longer time gives a purplish brown tone, which is not an unpleasant color for some prints, but as a rule is not as pleasing as the warmer browns and sepias.

This paper is so heavy that it may be cut into cards the size of a postal, a picture printed on the sensitive side, the address and stamp put on the other and sent through the mail as an ordinary post-card. It makes a very desirable medium for illustrated correspondence.

A water-tone paper which gives soft grays and clear blacks is the W. D. Platinum paper. The printing is continued until the outlines or shadows are of a deep canary color. It is then taken from the frame and slipped, face upward, into a tray of hot water, about 125° F. The picture develops immediately in clear blacks and whites, and as soon as the detail is out the print is transferred to a tray containing a solution of muriatic acid, one fourth ounce of the acid to sixteen ounces of water. It is left in this bath five minutes, then washed well and dried.

This paper may be partly printed, then laid face down or placed in a drawer for two or three hours, and at the end of that time the print will be found to be almost developed, the image turning black the same as a printing-out paper.

Another water-tone paper which combines the qualities of the sepia and the platinum water-tone papers is the Carbona paper. With this paper one may obtain a variety of brown tones, — an effect something like a steel engraving, — or a carbon black. It is a paper easy to manipulate, and the prints made on it are very fine.

Water-tone papers are certainly a great boon to the amateur who has little time for printing, and the different tones and qualities of paper enable him to make almost as satisfactory prints as those made by more complicated processes.

#### ANSWERS TO CORRESPONDENTS

Wesley Currier. — It is hard to say which is the best developer when each has its claim for superiority and each its adherents, but you will find the metol-hydrochinon developer an excellent developer for all-round work. Take 30 grains each of metol and hydrochinon, 1-2 oz. of sulphite of soda, and 16 oz. of water. This is solution No. 1. A second solution is made of potassium carbonate, 1-4 oz., water 10 oz. To use, take equal parts of both solutions; and for each ounce of the combined solutions, take 1 oz. of water. To intensify an under-exposed plate, make up a solution of

1-2 oz. each of chloride of mercury and chloride of ammonia, and 20 oz. of water. A second solution is made of 1-2 oz. of chloride of ammonia and 20 oz. of water. Wash the plate well, then place in a tray, face upward, and pour over enough of solution No. 1 to cover it well, and let it remain in the solution until the image has turned white, then remove and wash, and place in a tray containing solution No. 2. This solution will turn the plate black; and when it is again darkened, place it for a few minutes in a 10 per cent solution of sulphite of soda. Wash well and dry. If the negative is not dense enough, repeat the process. To keep cards from curling after the prints are dry, dampen the back of the mount after the print is mounted, or lay a square of damp blotter on the back of the mount. When the print is dry, the card will remain flat.

C. N. Gatchell. — The conditions of membership in the Round Robin Guild is that one shall be an earnest worker, and shall do all he can to advance the standard of photography. The name and address, and a note saying one wishes to become a member of the Guild, are all the steps necessary to become a member. A membership card and circular has been sent you.

Harry French. — You can make lantern slides from your kodak films by contact printing. They are developed in the same way as a negative, only the picture comes up a positive instead of a negative. Direction for making lantern slides will be found in recent numbers of the PHOTO ERA. In the March number, Round Robin Guild department, will be found an excellent formula for developing lantern slides.

W. B. — Scales for weighing grains may be purchased as low as fifty cents. There are tiny scales, called pocket scales, for this price which would answer your purpose as well as the more expensive scales.

Bertha D. F. — To clean bottles which have a deposit on the inside from solutions standing in them, take a handful of fine shot, drop it into the bottle, add a little washing soda, fill the bottle a third full of water, then shake well. The shot will clean the deposit from the glass and leave it as clear as when first used.

Art. H. — A panorama camera is an excellent supplement to the ordinary camera, but not desirable for an all-round camera. If you intend to take snap-shots at the St. Louis Fair, then I would advise a film camera, as that is the most convenient and most easily managed. You can have enlargements made from any of your negatives.

T. T. S. — I cannot say what month would be the most desirable for picture-making at the Fair as I know nothing of the atmospheric conditions, but should think May or early in June. The summer months will doubtless be very hot there, and by autumn the glory of the Ivory City will be waning.

## Notes and News

ST. LOUIS, For the information of the army of devotees of the camera who will attend the

Exposition, we take pleasure in quoting the following ruling of the Exposition Company as to the use of cameras on the grounds:—

"Visitors to the Exposition will be permitted to take hand cameras into the grounds and use them without charge."

With regard to exhibits, the rule adopted is as follows:—

"No exhibit or object upon exhibition may be sketched, copied, or reproduced in any way whatever without the permission of the exhibitor, approved by the Director of Exhibits."

CLEVELAND, The first annual exhibition of work by members of the Cleveland Camera Club was opened to the public, at the Club's quarters, April 25, and will continue on view until May 15.

Fifty-seven framed prints, representing the work of fifteen members, are hung, and the selection, which was in the hands of the Club's Print Committee, Messrs.

Baker, Semon, and Marvin, has been such that an extremely creditable show has resulted.

It is the intention of the Club to make this members' exhibit an annual affair, and it is expected that much good will result therefrom in the way of increased interest in the art and improvement in the quality of work, as exhibitions of this kind are, perhaps, as useful in these respects as shows of a more pretentious character, to which so many clever but modest amateurs hesitate to submit their work.

HOBOKEN, The Elysian Camera Club, Hoboken, N. J., began a competition, Jan. 1, 1903, offering a cup to the member exhibiting the finest marine subject during the year, each member to be permitted to exhibit but one view. The cup has been awarded to Mr. William Peterson, who made the winning negative with a Bausch & Lomb Plastigmat Lens. The Bausch & Lomb Optical Company, Rochester, N. Y., would be glad to have the addresses of all photographers who win prizes with negatives made with their lenses, and to arrange with them for copies of the prize-winning prints.

### PHOTOGRAPHIC EXHIBITIONS AND COMPETITIONS

SOCIETY OR TITLE	DATE	ENTRIES CLOSE	INQUIRE OF
Capital Camera Club, Washington .....	Apr. 30-May 11	Apr. 9	Francis C. Crow, 2317 Pa. Ave., N. W., Washington, D. C.
Salon de l'Exposition, Arras .....	May 1-Oct. 4	Apr. 5	Comité de l'Exposition, Arras, France.
Salon du Photo Club de Paris .....	May 3-June 5	Mar. 15	M. Paul Bourgeois, 44 rue des Mathurins, Paris, France.
Louisiana Purchase Exposition .....	May-Nov.	Apr. 1	John A. Ockerson, Chief, Dept. Liberal Arts, St. Louis.
First International Salon in The Hague .....	June 12-July 24	June 1	Sekretariat Haag, Conradskade 63, The Hague, Netherlands.
Wiener Photographische Gesellschaft .....	July 14	May 1	W. P. G., Karmelitergasse 7, Vienna, Austria.
International Photographic Exposition, Berlin ..	Oct. 1-30	Sept. 1-30	Herr Franz Goerike, Berlin, W. 62, Maassenstr. 32, Germany.
" Lantern-slide Competition .....	Oct. 15	Oct. 15	M. M. Vanderkindere, Palais du Midi, Brussels, Belgium.
" Stereogram Competition .....	Oct. 15	Oct. 15	" " " "
Hove Camera Club .....	Nov. 23	.....	A. R. Sargeant, 55, the Drive, Hove, Eng.
Southsea Photographic Society .....	Dec. 6	.....	F. J. Lawton, 20 Clarence St., Gosport, Eng.
Southampton Camera Club .....	Dec. 13	.....	S. G. Kimber, Oakdene, Highfield, Southampton, Eng.
First American Photographic Salon, New York ..	Dec. 1904	.....	S. C. Bullenkamp, 102 West 101st St., New York.
Northern Photographic Exhibition .....	June-July, 1905	.....	F. G. Issott, 62 Compton Road, Harehills, Leeds, Eng.

GIVER	CLOSES	PRIZES
Kodak N. C. Film Competition .....	June 10	£500—209 prizes.
Kodoid Plate Competition .....	June 10	£300—99 "
Kodak Developing Machine Competition .....	June 10	£200—96 "
Photo-American, Stamford, Conn. ....	July 1	\$5 in goods.
The Photographer, New York, (Frontispiece) ..	July 1	\$150, \$75, \$25.
" " " " " " .....	Monthly	\$15, \$10.
Photogram, Arundel St., Strand, London ..	Monthly	One guinea and half guinea.
The American Boy, Detroit .....	Monthly	\$2, \$1.
National Sportsman, Boston .....	Monthly	\$5, \$3, \$1, \$1.
Browning's Magazine, Boston .....	Monthly	\$5, \$3, \$2.
The Book-Lover, New York .....	Monthly	\$5, \$3, \$2, \$1.
American Amateur Photographer .....	Monthly	\$5.
Leslie's Weekly, New York .....	Weekly	\$10, \$5, \$1.
Buffalo Express .....	"	\$5 to \$25.
New York Evening Mail .....	"	\$5.
Commercial Advertiser, New York ..	"	\$3, \$3, \$2, \$1.
St. Louis Star .....	"	\$5.





ROSALIE  
BY GARO

# PHOTO ERA

## The American Journal of Photography

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VOLUME XII

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NUMBER 6

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### June

Like the swell of some sweet tune  
Morning rises into noon,  
May glides onward into June.

—Longfellow.

## A Dream of Fair Women

THOMAS HARRISON CUMMINGS

THE photographic art world has rarely been offered any types of female beauty more lovely or more pleasing than the pictures published in this issue of the PHOTO ERA. Nor does the opportunity frequently present itself to make comparisons by juxtaposition and contrast between amateur and professional photography along the same lines of work. Yet it came with this issue, and we have utilized it for our readers.

This Dream of Fair Women issue of the PHOTO ERA represents the evolution of an idea. The purpose being to show the relative advances made in portraiture by the up-to-date professional and amateur workers, it was suggested that the recent exhibit of the Capital Camera Club at Washington, D. C., would furnish a starting-point for this purpose. It was merely a coincidence, however, that the photographs hung in the Hemicycle of the Corcoran Art Gallery, this spring, were largely portraits of women of a high order of excellence. Nevertheless, we have utilized this fact to show the degree of perfection attained in amateur portrait work by photography. It has always been said that portraiture is the most difficult branch of photography that one can try, yet these results of the

Capital Camera Club display a mastery of the difficulties surrounding the work that is above the ordinary. To be able to pose subjects with the ease and self-forgetfulness shown in these pictures is an art that few possess outside the ranks of the professional, and is very difficult to acquire.

The very sight of the camera is sufficient to upset the nerves of some people. They become self-conscious, and their personal defects are very much exaggerated by passing through the ordeal of having their pictures taken.

So well aware is the average artist of such attitudes of mind in his sitters that he will rarely think of using a woman for any artistic illustrative work who has not by cultivation and training acquired perfect control of every muscle. To pose successfully, "the sitter should be as plastic as clay in the hands of the sculptor; inability or unwillingness to enter into this mood is as dispiriting to an enthusiastic operator as is an unsympathetic model to an artist."

Women of sufficient responsiveness for work of artistic merit are usually professional models or actresses. But the exception is to be found in these subjects of the Capital Camera Club who, for the accommodation of special friends, have lent themselves for this illustrative work.

Coming from some of the best homes in Washington, they have inherent ease of manner and natural power of concentration.

It is their simplicity of manner, quick responsiveness, and the ability to hold an expression, that renders them good subjects for their photographic friends. Then again most of these photographs have been made in homes away from the conventional studio with its artificial surroundings. Under such conditions there is better chance to catch the familiar pose and expression, a never failing source of interest and delight to the true artist photographer. It is the surroundings in these pictures which, in the main, serve to enhance and bring out the idea of the figure, and which make them pleasing to look upon.

Mr. Chas. E. Fairman, elsewhere in this issue, has written more at length about this exhibit, so that it becomes unnecessary to dwell further upon it here. It suffices to say that it is one of the notable photographic exhibits of the year, and demonstrates that the modern trend among amateurs is largely in the direction of portraiture. It is curious to note the different attitudes of the amateur and professional to portrait work in photography. The former largely views it from the standpoint of friendship and reminiscence. To him the portrait of a friend will sometimes recall pleasant memories. Hence his delight in recording the familiar lines and the changing expression on a friend's face by the camera. There is a fascination and a charm about it that is altogether its own, and is often-times visible in the completed work. There is a characteristic look and pose that makes the picture lifelike, satisfying, and real. The professional photographer approaches portraiture from an entirely different standpoint. He views the sitter as a model in whom he seeks to give expression to some fancy of his brain. "There is always a delight in this," says Draper, "the using of that which is present and patent as a means of telling others of something which our own soul has created. Those abstract feelings which go to make up life,—joy, sorrow, grief, interest, love, hope,—all these may be translated, according to our view of them, to the

sensitive plate, just as a painter renders them permanent on canvas."

In the beautiful pictures by Garo which constitute the professional portraiture of this number of the PHOTO ERA the artist, we feel, has striven for the same end as the painter might have tried for: viz., to get as true an impression of the portraits he wished to make as was possible, using every means available for the purpose. In two points only does he fall short of the painter,—in color and in rendering accurately certain realistic values that are largely made up for by the wonderful tone values of his pictures.

Some one has said that, subjectively, the painter and photographer reach after the same goal. Technically they approach it from opposite directions. The painter starts with a bare surface and creates detail, the photographer is supplied therewith. Art lies somewhere between these starting-points, for art is a reflection of an idea, and ideas may or may not have to do with detail. There is breadth in the treatment of these Garo portraits which does not always mean the suppression of detail. Where unnecessary or uninteresting detail has been omitted, it is only done to simplify when the unity of the picture was in danger. This breadth of treatment, so distinctively apparent, has sometimes been obtained by graded light, or by direct illumination. In the first we have great simplicity as well as variety; in the second we lose variety, but gain in simplicity for the treatment of the pictures.

Hopkinson Smith used to say that it required two men to paint a picture, one to work the brush and the other to kill the artist when he has finished his picture and doesn't know it.

In the case of Garo we have an instance of the artist who knew when to stop in making his pictures. His portraits represent the highest type of photographic art. Pleasing the eye and expanding the soul, they leave nothing to be desired. Photography has been reaching onward and upward, away from the domain of applied art, for some years past, but it has seldom come so near breaking the mechanical fetters which have thus far shackled it as in these beautiful examples of professional portraiture by Garo.

# On the Stability of Alkaline Sulphites

PROFESSOR R. NAMIAS

RECENTLY I have made an extended research on the stability of the alkaline sulphites and bisulphites. The results which I have obtained seem to me to be of great practical importance.

I will say at first, that the most exact method which I have found for the estimation of sulphurous acid in sulphites and bisulphites is the following: Dissolve two tenths to five tenths of a gram of the compound in distilled water which has been boiled and cooled. The solution is rendered slightly alkaline if it is acid, as in the case of bisulphite, by adding to it a few drops of a dilute solution of caustic potash. Then add a standard solution of iodine until the solution is strongly yellow, and titrate the excess of iodine with a standard solution of sodium hyposulphite. If it is also desired to estimate the sulphuric acid, pure hydrochloric acid is added and the solution is warmed in a current of carbon dioxide to drive off all the sulphurous acid. When this precaution is used, I have found that the results are much better, as otherwise the sulphuric acid is oxidized. The estimation of sulphuric acid serves especially as a check, for generally all that is not sulphite is sulphate. I say "generally," for in some cases I have found that sodium sulphite is contaminated with a not inconsiderable amount of sodium carbonate. This carbonate is doubtless the result of improper manufacture; for, as is well known, sulphites are made by saturating carbonates with sulphurous acid. After measuring the sulphurous acid and the sulphuric acid the quantities of alkaline sulphite and sulphate which correspond to them and then, by difference, the quantity of alkaline carbonate, are calculated.

The product most commonly employed in photography is sodium sulphite, which is sold commercially in both the crystalline and the anhydrous form. The analyses which I have made of the purest products have proved to me that it is impossible to obtain sodium sulphite free from foreign matter. The purest crystallized sulphites which I have examined contained only 90 per cent of sodium sulphite. Good commercial products

generally contain from 60 to 70 per cent; bad, and they are not rare, 30 to 40 per cent.

In anhydrous sodium sulphite the quantity of sulphate present is always very large; it is evident that when it is heated to remove water of crystallization there occurs a partial oxidation of the compound under even the best conditions.

I have recently found in products made by a good firm:—

Crystallized sodium sulphite, 44.2 per cent  
 $\text{Na}_2\text{SO}_3$ .

Anhydrous sodium sulphite, 55 per cent  
 $\text{Na}_2\text{SO}_3$ .

It may easily be seen that if one follows formulas for the preparation of developers and uses half the amount of anhydrous sulphite to replace the crystallized salt, it is possible to obtain very unsatisfactory solutions, on account of the insufficient quantity of sulphite and the large amount of sulphate, the action of which in developing solutions is not yet thoroughly established, although I believe it to be very harmful. According to my experience, crystallized sodium sulphite kept away from the air,—for instance in a tightly closed box,—keeps much better than anhydrous sulphite.

This comes from the fact that upon crystals, especially if they are large, the air cannot have as much action as upon small particles, which have, in proportion to their weight, a much greater surface of contact. But there is, I believe, still another cause: The anhydrous sulphite easily absorbs water, which enters into chemical combination, and the evolution of heat which takes place during this absorption facilitates oxidation. So, although anhydrous sodium sulphite is theoretically preferable and practically simpler to use, as it is already powdered, I do not recommend it; personally I do not use it at all. The simplest method of keeping sulphite in a solid state is to preserve it in glass vessels, into which, before sealing, a current of illuminating gas has been passed for a moment. The air is thus eliminated. Solutions of sodium sulphite keep still worse than the solid compound.

In this respect I can only confirm Ellis' recent experiments. A 10 per cent solution of crystallized sodium sulphite, for instance, which only half fills the bottle, contains after five days only about half of the original amount; and even when the air is completely driven out, it does not keep perfectly. I have not, however, been able to determine the nature of the change which takes place.

Let us now turn to the keeping of bisulphites. Of all compounds of sulphurous acid with alkaline metals, potassium metabisulphite keeps best. Its formula is  $K_2S_2O_5$ . It is potassium bisulphite dehydrated according to the equation,



On saturating a solution of potassium carbonate with sulphurous acid, if the quantity of this latter is that necessary to form bisulphite, crystallized metabisulphite deposits. It takes the form of beautiful crystals which contain no water of crystallization. The composition, therefore, cannot vary with the content of water. It possesses a feeble odor of sulphurous acid, and it is perhaps this very feeble disengagement of sulphurous acid which is the principal cause of its keeping qualities; for the acid, as it were, surrounds the molecules and drives out the air. Even in bottles which, although corked, are only half full, it keeps almost perfectly. Metabisulphite has given me, after being kept three years in a corked bottle only half full, 55.05 per cent of sulphurous acid ( $SO_2$ ), while it should theoretically contain 57.65 per cent.

One must not believe, however, that the sulphurous acid which is lacking will be found as sulphuric acid; it has simply disappeared. As a matter of fact, on measuring the sulphuric acid I found only 0.37 per cent of  $SO_3$ , an amount which is absolutely negligible, and that so much the more so because when one uses the hydrochloric acid method, even in a current of carbon dioxide, one cannot be sure that a very small quantity of sulphurous acid is not oxidized.

Metabisulphite of potassium is then the product which contains the largest quantity of sulphurous acid, and which keeps the best in a dry state. This being granted, it is natural to ask why such a pure product does not find the

favor which it deserves in the preparation of developing solutions. By calculating we find that the best crystallized sodium sulphite, which, as we have said, does not generally contain more than 90 per cent of actual crystallized sulphite, has about 22 per cent of sulphurous acid,  $SO_2$ , while the metabisulphite contains at least 55 per cent. One, then, might pay for it two and one half times as much as for the crystallized sulphite (in reality in commerce it does not cost much more), and also have the considerable advantage of possessing a substance which keeps much better. In addition one can use metabisulphite indiscriminately in all developing solutions by adding only about two fifths as much as would be used of crystallized sodium sulphite, and of neutralizing the acidity by a certain quantity of caustic soda or potash. This is very important, for the acidity of the metabisulphite partially neutralizes the alkalinity of the solution and changes its action. It is, therefore, well, especially for certain developers, to neutralize the metabisulphite, not by the use of a larger quantity of alkaline carbonate, but by caustic alkali; for the carbonic acid, which is otherwise set free, is retained in the form of bicarbonate, and retards the action of the solution. With hydrochinon, for instance, the presence of carbonic acid has an effect which cannot be neglected.

For each 10 grams of metabisulphite one must add, to neutralize the acidity, about 3.5 grams of caustic soda, or 5 grams of caustic potash. It is possible to use metabisulphite as a substitute for sodium sulphite in any solution. For certain developers which act energetically,—for instance, metol, edinol, etc.,—we simply increase the quantity of carbonate a little without using caustic alkali.

Metabisulphite, which keeps very well in a dry state, has not the same quality in solution. Solutions kept in full corked bottles keep much better than those of sulphite, however. This comes especially from the fact that the sulphurous acid which is disengaged protects the surface of the liquid from contact with the air. In an open vessel the keeping qualities of the sulphite and metabisulphite do not differ very much.



MISS GORDON WALKER  
BY GARO

PHOTO  
ERA



MME HOMER  
BY GARO



MME GADSKI  
BY GARO

PHOTO  
ERA



PORTRAIT  
BY GARO

PHOTO  
ERA

# The Exhibition of the Capital Camera Club

CHARLES E. FAIRMAN

IN reviewing this, the thirteenth annual exhibition of the Capital Camera Club, there is some little danger of repeating what has been written of former exhibitions, — that this exhibition surpasses those which have preceded it, — and yet it is encouraging to feel that such a statement can be made thoughtfully, and without any desire to say flattering or commonplace things.

This condition is a proper one. An organization which barely holds the same position from year to year, is in grave danger of retrograding, and this is especially true of camera clubs, where the membership has been gathered from those who follow photography for the pleasure it yields, and not for the revenue it supplies. In camera clubs there is always a need of enthusiasm and high ideals, or the interest will flag, and the hope of improvement fail.

Among nearly six hundred examples of photography the jury of selection, composed entirely of painters, found 296 pictures which were considered as worthy of a place in this exhibition in the Hemicycle of the Corcoran Gallery of Art. This constitutes the largest number of frames ever admitted to any of the club exhibitions held in the Hemicycle for the past four years, and the increase of frames indicates a larger interest in the annual exhibitions by amateurs outside the District of Columbia, and a clearer understanding on the part of all exhibitors of the requirements of an art jury. Amateurs are striving for a better art expression in their work, and the striving has not been in vain, and is now commencing to show in the change in standards.

The advantage of a jury of selection composed of painters seems to be fully proven by the history of the Capital Camera Club after a trial of several years. It can fairly be said that this is no longer an experiment. Those who at first seemed somewhat doubtful over the propriety of having photographs judged by artists have finally concluded that if the work belongs to the realm of art, the medium or the tools used in its pro-

duction has nothing to do with the merit of the picture. The belief that artists are prejudiced in their views toward photography is passing away, and photographers realize that the prejudice does not exist toward photography, but toward poor art.

In summing up the gain in photographic exhibitions as found in Washington, it may be said that there is a strongly evinced disposition toward simplicity in composition whether in landscape, genre, or portrait work. It has been well learned that the mechanical conditions surrounding photography tempt the photographer to include too much in the picture, and the benefits of this well-learned lesson are evident. There is also a noticeable change in the tonal qualities of the work shown, and those examples which illustrate brilliant effects are absent. The work is richer in sentiment or feeling, and the art impulse is becoming more and more apparent. In the framing and the mounting of the work there is also a decided gain, although some cling with desperation to the white mount, others to the decorative frame, and some seem to feel that an added merit is given to their work by the eccentric mountings of their prints, so that one wonders why the queer spacing and what has been omitted from the unoccupied spaces which seem to be wanting in some note of interest. These instances are becoming fewer. In some cases the jury would have been forgiven if they had conditioned the exhibits, although but for the mounting the work possessed more than ordinary interest and merit.

It is probable that no other exhibition in Washington has contained so many interesting studies and portraits of women; and because this has seemed to be the most pronounced feature of the exhibition, the choice has been given to pictures of women for the illustrations accompanying this article. In some instances the work has been done by the light of an ordinary window, in others the studio light has been used. More interesting, however, than the methods employed, are the varying estimates placed

upon the work by the different artists contributing to these pages, for we must assume that the work represents the serious determination on the part of the different artists as to the most pleasing characteristics, to them, of the various models employed.

While the camera club is well adapted for portrait work, it is interesting to note that some of the most serious workers are represented in this exhibition by work belonging to the landscape class. In this some have worked broadly, others with quite a degree of definition, the tendency toward proper arrangement and pleasing lines being stronger than toward breadth or definition. This points to a valuable object-lesson, and that is that diffusion is not always art nor its absence a lack of art.

The catalogue prepared for this exhibition may well be called impressive on account of the size of the pages, which are fully as large as those of the PHOTO ERA, and it was also gratifying to note that the work of the printer was so well done that the size of the catalogue seemed eminently proper. The half-tones were well engraved and well printed.

It may be interesting to know that the Capital Camera Club, if we count life by the record of annual exhibitions, is the second art society of the National Capital, and that its annual exhibitions have become art events interesting fully as many visitors as the exhibitions of the art societies of the city. Photography has here a rare opportunity; and if the most is not made of the advantages which exist, the photographer,

and not the public will be the one to be blamed. Especial mention is due to the landscape work of E. J. Daw, W. F. Peabody, W. C. Babcock, John Hadden, C. H. Leighton, Adolphe Petzold, and W. S. Adams. W. S. Sheetz, Wendell G. Corthell, W. S. Davenport, and others were well represented with interesting pictures of streets and street life. Jeanne E. Bennett, J. H. Tarbell, and C. H. Leighton, exhibited genre work of conspicuous merit. Lee Hamilton Keller, Albert J. LeBreton, W. C. Sawyer, and R. D. Stovel exhibited night pictures of marked interest. T. A. Mullett, Helen E. Williams, Virginia M. Prall, Dr. W. P. Herbst, C. Durand Chapman, Frank M. Boteler, H. P. Baily, R. S. Kaufman, Isabel Cowlam, Caroline T. Pennington, E. W. Humphreys, and Sigrid Gustafson Thompson exhibited portraits containing merit which should demand a more extended notice.

In the methods employed a wide range was covered. Platinum, carbon, gum-bichromate, kallitype, bromide, carbon on porcelain, and carbon on Japanese tissue were among the examples found on the walls. The increasing number of pictures made by enlargement on bromide, or direct prints from enlarged negatives, points to the conclusion that in the preparation of work for exhibitions, the photograph is becoming a separate and distinct product in which no two copies are alike, each containing more of the personal emphasis of the artist, and less of the ear-marks of the mechanical processes of photography.

## Commercial Photography

HERBERT W. TAYLOR

THE term "commercial photography" is used to designate that class of photography which covers a broad field of financially profitable work, wherein artistic imagination has no place and the point of view is strictly one of consideration for minute detail and even illumination. In every large city where manufacturing interests are important there will be found establish-

ments—studios would a misnomer—employing several operators and a force of printers, whose business is to photograph anything from a steam pump to a bunch of grapes; and this business has been rapidly growing within a few years, as manufacturers and dealers appreciate more and more the value of actual photographs in placing their wares before the trade. Illustrated

catalogues are no longer printed from drawings, but from photographs; and even the smallest details of construction, such as the fine mechanism of the valve of an engine, or the peculiarly made action of a piano, may be so shown by means of a photograph as to convince a skeptical customer.

The beautiful pictures of estates and show-gardens which appear in magazines may have been photographed originally for the landscape architects who laid out the grounds, to be used by them in soliciting other commissions. Pictorial advertisements of soaps, tooth pastes, clothing, and a multiplicity of other commodities are in the majority of cases made from photographs, while considerable money has been earned by making photographs especially adapted for the exploitation of particular articles. This is much like writing street-car poetry, however. The picture must be attractive and the points of the article illustrated forcefully demonstrated. The original commercial photography related more especially to such articles as tables, chairs, and other pieces of furniture which are sold by traveling salesmen from photographs, since it is obviously impracticable to carry the original furniture to the buyer's store.

Articles which can be taken to a studio can be easily lighted so as to show all parts equally well, but when the photographer has to make the exposure at a factory, he finds difficulty in obtaining a suitable light; and in order to produce an evenly illuminated picture the negative must be printed under a mask of tissue paper, with extra thicknesses of tissue over the weak spots, such as pigeon-holes of a desk or panels underneath. Before proceeding to print, the background must be painted out with opaque, so that in the print the chair — or whatever the article may be — shall rest upon a sheet of white paper. A drawing pen and ruler may be used with india ink in outlining the straight edges, but curves are done by hand with a fine brush. Next, with a broader brush, the opaque is extended half an inch or more from the outline and a frame of post-office paper is fitted over the negative so that nothing but the picture shall print. I understand that in the furniture centers of Michigan there are studios with warehouses connected

where car-loads of furniture are received. Experienced men set the furniture up and wheel the pieces under the skylight, where operators, working day after day with the same light, can photograph a great many articles in a day. There the painting out is done by girls who become expert, and run their brushes around intricate carvings with remarkable facility.

Glossy prints have been used as being best adapted for showing the details of carving, moldings, etc. The print was dried on a tin plate and a piece of cotton sheeting was pasted upon the back for support. Prints are now made on matt-surface collodion paper. As this paper will not lie flat, a gelatine-coated paper is used for support, the curling tendency of the print being counteracted by the same force in the backing paper, exerted in the opposite direction. The print must dry evenly in order that it shall be absolutely flat when finished. This is accomplished by placing the wet print face down upon a piece of glass. The backing paper, which is cut half an inch larger than the print on all sides, is spread with paste and laid over the print, and rubbed down with blotting-paper. Where the backing paper overlaps the print, it becomes pasted to the glass, so that it is impossible for the print to dry locally and peel off from the glass. After drying over night, the print is cut loose around the edges and comes off perfectly flat.

Furniture is photographed either in the natural wood or with a dead finish stain which brings out the grain of the wood. The contrast in tone between the marking and the background of the wood is so slight that a short exposure is necessary to secure sufficient contrast in the negative to show the grain well. A very brief exposure, however, will produce a picture with many shadows, which is fatal in this class of work, so that a better plan is to give full exposure and then to strengthen the grain by retouching the negative, which will be found quite a task. Distortion is avoided by using a camera with long bellows and working with one combination of the lens only. This doubles the length of focus; and the farther the point of view is from the object, the less will the distortion be.

# Photographic Museums

FRANK ROY FRAPRIE

IN connection with the movement for the collection and preservation of historical pictures in America, started by the PHOTO ERA with the institution of the National Historic Picture Guild, it may be of some interest to trace the origin and growth of this movement in other lands.

An Englishman, Mr. W. Jerome Harrison, read a paper at the Photographic Congress of 1893 in Chicago, in which he proposed the formation of international collections, which should not only preserve photographs, but should exchange them. The Congress became enthusiastic and chose a commission for the study of the subject. The committee never reported, and the subject disappeared from view.

M. Leon Vidal, a well-known French photographic writer, and a member of the international commission, pushed the scheme further in France, and succeeded in interesting a number of learned societies; and as a result there was soon founded the Association du Musée des Photographies Documentaires. The enterprise was attended with complete success. Quarters were given by the Booksellers' Association, and gifts of photographs were received from many sources, so that in December, 1903, at the close of ten years of life, the society possessed more than 80,000 photographs.

The greatest difficulty encountered by this collection has been the poor quality of the paper used as a support for the photographs, which decays under the influence of humidity in a few years. A process of treatment with paraffine is now employed, and the prints thus treated are impervious to atmospheric influences, and are expected to last almost indefinitely. The rooms of the association have grown too small for the collection, and the municipality has been asked for the Petit Palais in the Champs Elysees.

In England, Sir Benjamin Stone founded in 1897 the National Photographic Record Association,—a strictly national institution. Its collection now numbers about 30,000 English views, of which a third are the work of the

founder and president. It is affiliated with numerous local societies, which possess their own collections, as well as contribute to the national one.

In Belgium the Musée Belge des Photographies Documentaires was founded in 1901 with the aid of the Photo Club Belge. The president is M. Ernest de Potter, and the society will work on the same principles as the French institution.

Switzerland has an institution of the same character, founded in the same year at Geneva, under the presidency of Dr. Demole. This museum has adopted the same regulations as the French one, and has accumulated more than 15,000 documents. The collection has been transferred to the custody of the city of Geneva, which has provided rooms for it in the new art museum.

The Canton of Vaud possesses a similar museum at Lausanne, the curator being M. Paul Vionette. Steps have been taken for the foundation of similar societies in Germany and Austria, and a movement has recently been started in Australia to the same end.

The first part of Harrison's proposition is now accomplished, or on the road to accomplishment; in several of the most important countries; but as yet little progress has been made in the second part,—that of international exchanges. M. Vidal thinks this may ultimately be accomplished if all the national institutions are founded on the same basis.

The need of such a collection in America is, perhaps, even greater than in older countries; for nowhere is life lived at such a feverish pace as in America, and nowhere do things age as rapidly as here. American progress shows little respect for antiquity, and landmarks are ruthlessly destroyed in the interests of business; the more need for photography to intervene and preserve the form, if the substance must vanish. We wish all success to the National Historic Picture Guild, now soon to be incorporated.



PORTRAIT  
BY GARO

PHOTO  
ERAT



A COLONIAL GIRL  
BY T A MULLETT



THE LADY WITH THE DOG  
BY HELEN E WILLIAMS



MADELEINE  
BY JEANNE E BENNETT



PORTRAIT  
BY VIRGINIA M PRALL



PORTRAIT OF JULIET THOMPSON  
BY VIRGINIA M PRALL



AN OLD SWEETHEART OF MINE  
COPYRIGHT 1904 BY ARTHUR NOBLE TAYLOR

PHOTO  
ERA



HE SATISFIETH THE LONGING SOUL  
BY JEANNE E BENNETT

PHOTO  
ERA

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Contributions relating to photography in any and all of its branches will receive our careful consideration. While not accepting responsibility for unsolicited contributions, we will endeavor to return them if not available, provided return postage is enclosed.

Table with 2 columns: Subscription Type, Price. Includes 'EDITION DE LUXE' and 'REGULAR EDITION' rates for annual, single copies, and foreign subscriptions.

Table with 3 columns: Vol. XII, JUNE, 1904, No. 6. Header for advertising rates.

Women Photographers The presentation in this issue of so many beautiful portraits by amateur women photographers directs attention anew to the opportunities offered to women for professional success in the field of photography.

In every large city and town of the United States there is a place waiting for some girl photographer who can combine business qualifications with a taste for the artistic in picture making.

In these days, when the public is demanding

something more than a mere likeness in the making of portraits, it is the educated woman's opportunity. She can do this best, because it requires a certain deftness of touch, a sense with which she is naturally endowed and which is peculiarly her own.

Some of the high-class men photographers who have achieved distinction in their profession possess it to some extent; but it has come to them by hard study and long experience, while the average young woman of fair ability and artistic intelligence would come by all this intuitively.

Herein lies the chance for success in photography for women, as we see it,—not only in photographic portraiture, but in the making of outdoor pictures as well, landscapes, marines, and genre pictures, which may be converted into charming bits for framing, and sold at good prices.

Psychic Photographs At a recent meeting of the London (England) Camera Club a lecture on "Psychic Photography" was delivered by Mr. Henry Blackwell, illustrated by spirit pictures in the form of lantern slides.

not proven"; and in the general discussion that followed, it is related that more than one speaker commented on the fact that most of these ghost stories, ghost pictures, and ghost photographers emanated from the United States.

Humor is not characteristic of the average Britisher, especially at a camera club. There he deals only with concrete facts. But we were inclined to accept the above charge as ludicrous, assuming it referred only to the ghost stories regarding photographic art in America that are now being published in *Photography* (London), and that emanate from the shades of the Photo Secession. Their story of how the spirits move the Photo Secessionists at times, and get on their photographic plates while they are shooting at something else, would tax the credulity of any camera club member. And so we are not surprised to learn that some of the London Camera Club hold the United States responsible for ghost stories, freaks, and other psychic phenomena in photography from what appears in Child Bayley's publication.

*A New Photo Era* The PHOTO ERA is glad to be able to announce to its readers that, thanks to their generous support, it can now present them with a new and improved magazine in its next edition. Beginning with the July number, we have made arrangements whereby each issue of the magazine will be entirely set up and printed from new type. The arrangement of the pages will be changed and improved, and the magazine will be typographically the equal of any product of American printing-presses. We owe the prosperity to which this change is due to the support of our readers, and we believe that they should share the benefits of this prosperity with us. It goes without saying that this change will cost money, and we hope that our readers will do their best to extend our influence. Tell your friends what a beautiful magazine you are getting, and induce them to buy it or subscribe to it. Above all, patronize our advertisers; and when you write them, tell them you saw it in the PHOTO ERA. An advertiser has no means of knowing whether an advertisement is bearing fruit if it does not bring replies, and he wants to be able to trace

the replies to the magazine which caused them. Some advertisements are keyed, — that is, have some peculiarity in the address which tells the advertiser where the reader saw it. So use the full address as the advertisement gives it; but, above all, always mention the PHOTO ERA. The more advertising we carry, the better magazine we can give you; so you are helping yourself by helping us.

*The Practical Photographer* The second number of the *Practical Photographer*, on "Printing on Bromide and Gaslight Papers," has just been issued by the Photo Era Publishing Co. The third number, on "Developing and Developers," will appear early in June, and thereafter each successive month it will appear regularly.

In sending forth this practical book to the photographic world, we let fly our arrow and bend our head to the coming storm — if storm it be — confident that we shall be judged according to our merits, without fear or favor. The reception thus far accorded us has been very favorable. On every side there has been nothing but encomiums. In fact, we are basking in the rich sunlight of popular favor, apparently. We have not heard a single discordant note, nor have we seen a single line of adverse criticism. This does not mean, however, that we are unduly elated over our latest success. Our attitude in giving this new publication to the American public was one of helpfulness and a desire to be of practical service to the workers in the photographic world. If the proof of the pudding is in the eating, then we are to be congratulated — the entire edition has been sold.

*Photography and Royalty* Photography has long been a favorite pursuit and pastime with the nobility and crowned heads of Europe. A picture has recently been going the rounds of the American press, of a royal family group taken by the Grand Duke Michael of Russia, which shows that he is no mere amateur at photography. The picture was posed recently at the summer residence of King Christian of Denmark, and includes the Princess Victoria, the Dowager Empress of Russia, the Duchess of Cumberland, and the Queen of England.

Queen Alexandra herself and her daughters take excellent photographs. The Princess Victoria of Schleswig-Holstein is an expert of no mean parts with the camera; while her aunt, the Princess Beatrice, has many albums filled with photographs that she and her sons have taken. The same story can be told of the royal families of Germany, Italy, Spain, and Portugal, whose members are nearly all enthusiastic devotees of the art. Besides furnishing them with pure and healthful amusement, photography has also interested them in the common branches of applied art, in nature study and allied topics. It has been a most delightful fad, but more than that, it has been educative in the broadest and truest sense of the term. No person of intelligence and taste can make pictures with the camera for any length of time without being led to a wider range of knowledge and a larger exercise of their moral and intellectual faculties. It encourages a love for both nature and art. And we believe that if it has served no other purpose than this, it has vindicated its right to be regarded as one of the most potent influences for good in modern civilization.

*Wonders of Photography* Every scientist knows how photography has revolutionized astronomy. Photographs of the heavens, the sun, moon, and stars have revealed facts and have furnished many data for the astronomer that would be otherwise unattainable. Comets have been analyzed, asteroids and meteors, scarcely visible to the naked eye or the telescope, have left their trails upon the photographic plate. Nebulæ have been revealed, and the satellites of planets figured out by mathematicians have been confirmed and located. In chemistry and microscopy, wonders have been revealed by photography, and new metals have been added to the list of elements. It has enriched the science of meteorology by its studies of clouds and lightning discharges.

It is, however, in its application to the sciences and the industrial arts that its greatest practical uses have been defined.

In civil engineering and surveying, thousands of square miles have been platted by means of the photo-theodolite; while in printing, it has

economized processes, reproducing the Encyclopedia Britannica at one third the cost of type, and preserving, by duplicating, useful manuscript copy of priceless value. Its service to history in furnishing truthful records of fact has revolutionized the art of historical record work. In ferreting out evil, and detecting crime, it has proved a valuable adjunct to society, and the guardians of the law and order have not been slow to avail themselves of it. But two novel applications of photography have been recently made, that are interesting and worthy of special attention. One is testing butter by photography, the other is tailoring by photography.

J. A. Hummel, state chemist of Minnesota, by a combination of Nicol prisms, microscopes, a lensless camera, and a sensitive plate, has hit upon a plan to detect good butter from the spurious article at a glance. It appears that pure butter contains only amorphous fat, and any heating process will generate crystals. Consequently, if the butter is free from crystals, and therefore pure, when it is photographed, there are no polarized rays and only a dull translucent light will pass through to the plate. But if there are crystals, as in oleomargarine, butterine, etc., the bright and dark spots will come together and form a peculiarly shaded picture on the negative that is unmistakable. The proof is said to be absolute and convincing.

From Paris comes a new patented process, entitled "Tailoring by Photography." The person to be measured is placed before the camera, and between them is introduced a network that is photographed at the same time and serves as a standard. Certain artifices are necessary to obtain a complete result: thus, certain hidden parts, like the armpits, etc., must be indicated by objects visible from without, and, finally, several views must be taken from various standpoints. These parts may, however, be marked directly on the person instead. The relative positions of the camera, the network, and the subject are carefully adjusted so that the subject appears always on the same scale, and then the photograph is taken from the various necessary standpoints. And now photography, like Alexander of old, is seeking for new worlds to conquer.

# A Kodak Incident

TWO friends with a kodak were passing a wretched old shack in which lived a queer old man. "Take a snap-shot there," said J——. "No," was the answer, "I never take a picture of the ugly; there's enough of the beautiful."

The attitude is worth cultivating. The beautiful needs to be shown far and wide. No man sees it without reverencing it and growing better. For, whether expressed on canvas, in the statue of marble, or in whatever form, beauty is beauty because of its nearness to perfection, to truth. And all men are the purer and better at all times for seeing the like-

ness of truth in any form or under any guise. In many other ways as well as by the kodak it is good to see men who determine to spread the knowledge of the beautiful rather than that of the ugly.

One may denounce the low and the mean. But more is gained by speaking ever of the high and the true. It would be easy to exhaust oneself in denouncing evil, but much more will be accomplished by him who speaks ever of the true and the pure, the knowledge of which is needed more than silver or gold, and the sight of which men are ever deeply yearning after. —*East and West.*

## PHOTOGRAPHIC EXHIBITIONS AND COMPETITIONS

SOCIETY OR TITLE	DATE	ENTRIES CLOSE	INQUIRE OF
Salon de l'Exposition, Arras .....	May 1-Oct. 4	Apr. 5	Comité de l'Exposition, Arras, France.
Salon du Photo Club de Paris .....	May 3-June 5	Mar. 15	M. Paul Bourgeois, 44, rue des Mathurins, Paris, France.
Louisiana Purchase Exposition .....	May-Nov.	Apr. 1	John A. Ockerson, Chief, Dept. Liberal Arts, St. Louis.
First International Salon in The Hague .....	June 12-July 24	June 1	Sekretariat Haag, Conradskade 63, The Hague, Netherlands.
Wiener Photographische Gesellschaft .....	July 14	May 1	W. P. G., Karmelitergasse 7, Vienna, Austria.
International Photographic Exposition, Berlin...	Oct. 1-30	Sept. 1-20	Herr Franz Goerike, Berlin, W. 62, Maassenstr. 32, Germany.
" Lantern-slide Competition .....	Oct. 15	Oct. 15	M. M. Vanderkindere, Palais du Midi, Brussels, Belgium.
" Stereogram Competition .....	Oct. 15	Oct. 15	" " " "
Hove Camera Club .....	Nov. 23	.....	A. R. Sargeant, 55, the Drive, Hove, Eng.
Southsea Photographic Society .....	Dec. 2	.....	F. J. Lawton, 20 Clarence St., Gosport, Eng.
Southampton Camera Club .....	Dec. 13	.....	S. G. Kimber, Oakdene, Highfield, Southampton, Eng.
First American Photographic Salon, New York..	Dec. 1904	.....	S. C. Bullenkamp, 102 West 101st St., New York.
Third International Salon, Marseilles .....	Jan.-Feb., 1905	.....	M. E. Astier, 11, rue de la Grande Armée, Marseilles, France.
Northern Photographic Exhibition .....	June-July, 1905	.....	F. G. Issott, 62 Compton Road, Harehills, Leeds, Eng.

GIVER	CLOSES	PRIZES
Kodak N. C. Film Competition .....	June 10	£500—209 prizes.
Kodoid Plate Competition .....	June 10	£300—99 "
Kodak Developing Machine Competition .....	June 10	£200—96 "
Photo-American, Stamford, Conn. ....	July 1	\$5 in goods.
The Photographer, New York, (Frontispiece) .....	July 1	\$150, \$75, \$25.
Burr McIntosh Monthly, New York (Beautiful Woman) .....	Aug. 1	\$200.
Youth's Companion, Boston .....	Oct. 31	\$430. (10 prizes).
The Photographer, New York .....	Monthly	\$15, \$10.
Burr McIntosh Monthly, New York (Outdoor Photographs) .....	Monthly	\$15, \$10, \$5.
" " " " (Freak Pictures) .....	Monthly	\$10, \$5.
Photogram, Arundel St., Strand, London .....	Monthly	One guinea and half guinea.
The American Boy, Detroit .....	Monthly	\$2, \$1.
National Sportsman, Boston .....	Monthly	\$5, \$3, \$1, \$1.
Browning's Magazine, Boston .....	Monthly	\$5, \$3, \$2.
The Book-Lover, New York .....	Monthly	\$5, \$3, \$2, \$1.
American Amateur Photographer .....	Monthly	\$5.
Western Camera Notes, Minneapolis .....	Monthly	\$5, 3, \$2 in goods.
Leslie's Weekly, New York .....	Weekly	\$10, \$5, \$1.
Buffalo Express .....	"	\$5 to \$25.
New York Evening Mail .....	"	\$5.
Commercial Advertiser, New York .....	"	\$3, \$3, \$2, \$1.
St. Louis Star .....	"	\$5.



OPHELIA  
BY SIGRID GUSTAFSON THOMPSON

PHOTO  
ERA



FROM THE LAND OF LOTOS  
BY E W HUMPHREYS

PHOTO  
ERA



PORTRAIT  
BY MARY CARNELL





MISS M  
BY CHARLES O AXELL

# The Round Robin Guild

Specially designed for the Amateur Photographer and the Beginner

Conducted by Elizabeth Flint Wade

(Any amateur photographer may belong by sending in his name and address)

## AT THE SEASHORE

The summer vacation already shows on the horizon, and it will not be very many weeks before we shall be wandering here and there by the shores of river, lake, and ocean, enjoying a surcease from work and care. Perhaps there is no locality which offers to the amateur so many picturesque possibilities as does the seashore. The atmosphere—using the word in artistic sense—is never twice alike. The gray days, the misty mornings, the brilliant noontides, the fog-enveloped shore with all their attendant variations of clouds and sunshine present the same scene in many aspects. Even the scene changes with the changing tide, whose ebb and flow, influenced by wind and moon, and never the same two days in succession, remodels even the outlines of the shore. To-day it carries away with it some old wreck which has lain for decades in the sands, to bring to-morrow in its place other spoil of the sea and leave it to become a new landmark.

To the amateur who pays his first visit to the seashore, his attempts at seascapes are apt to be dismal failures. It is hard to comprehend the intensity of the light, even in the early morning, and plates are hopelessly over-exposed.

Unless the day is very dull and foggy the plate used should be a slow plate, Cramer B and Seed's No. 26 being plates which give excellent results for instantaneous work. With a slow plate one can use a larger stop, and the large stop is to be preferred. On foggy days one may make very interesting pictures. Fog, instead of deadening the light, has really great illuminating powers, so one may make very short exposures on foggy days; and by using a developer that will bring out detail as well as give density to the image, very fine negatives are obtained. Eiko-hydro developer is an excellent developer for such exposures as just mentioned.

In using a tripod on a rocky shore one will find that thin slices of cork or pieces of rubber slipped on to the steel points of the legs will prevent them from slipping.

There is one subject which is seldom chosen by the amateur, and that is the photographing of lighthouses. They are always built in picturesque places and are often very artistic bits of architecture. Then, too, every lighthouse as well as every mariner's warning in the shape of buoy or bell usually has its bit of history. The Thatcher Island Light on the coast of Massa-

chusetts is built on the "Rock of Avery's Fall," and marks the place where—

"The soul of Parson Avery went singing to its rest."

Norman's Woe brings to mind the "Wreck of the Hesperus," and Gloucester Light, which stands on a rocky ledge running far out into the sea, a "pillar of fire by night, a cloud by day," is hailed by the storm-beaten mariner with a joy he cannot express; for after his long tossings and buffetings Gloucester Light assures him that, his "passage perilous" over, he has found a pleasant port.

The early morning, when the sun is sending long beams of light across the water, is a time when one may get beautiful effects in picture making. The evening and the morning are so very different at the seashore that it would pay the amateur to rise betimes for a few mornings at least, in order to avail himself of the unusual pictorial possibilities of the morning's fleeting beauty.

## HISTORIC PICTURES

Doubtless many—it is to be hoped all—of the members of the National Historic Picture Guild have read in the May "Century" Mr. George F. Parker's article on "History by Camera." It is an account of the National Photographic Survey of England,—an organization which is now considered most important in preserving to futurity the history, antiquities, social life, customs, and traditions of Great Britain. The history of its beginnings is of special interest, showing as it does how the great develops from the small and unnoticed. Sir Benjamin Stone, M. P., is the originator, promoter, and moving spirit of the organization. In the early seventies he became interested in photography and began making collections of photographs illustrating the manners and customs of people in uncivilized and outlying countries, and the inhabitants of islands, and the pursuit became so absorbing that he employed a professional photographer to help him obtain pictures of special interest.

After his election to Parliament he found opportunities of visiting places from which hitherto photographers had been excluded, and then came the study of English customs extending as far back as pagan times. This expanded into a systematic survey of his own county, Warwickshire, which was divided into sections, and each section allotted to some person who looked after the picture making.

As the collection grew, exhibitions were held, and the interest aroused inspired neighboring counties to take up work in their own precincts. Thus the idea expanded and grew, until it assumed a national importance. It was then organized as the National Photographic Survey, and the British Museum authorities undertook the work of arranging and classifying, housing and exhibiting the pictures collected by the survey.

The collection now numbers about thirty thousand photographs, of which at least ten thousand are from negatives made by the president, Sir Benjamin Stone. A collection of these pictures is on exhibition now at the St. Louis fair.

Each picture is supplemented by a full description of what it represents, and thus is one of the most valuable sources of information for the delver into history.

It is considered a great honor to be a member of this association and to help in the work, for it is a work which will go down to posterity as one of the greatest of the records, and the most valuable, of English history.

Sir Benjamin Stone has put not only time but a great deal of money into the work, and the two combined have made the Pictorial Survey of England the great organization that it now is.

The National Historic Picture Guild of America is striving to emulate this great example set it and to preserve to the United States in safe and enduring form the records of the past and the present for the benefit of posterity. The one thing lacking is the want of funds to pursue the work more vigorously and to meet the expenses of this rapidly growing organization. We need money for carrying on a central correspondence bureau, for circulars and documents descriptive of the work and its progress, for perfecting the organization of local chapters, etc.

In time the organization will become self-supporting, for the promoters already see the possibility of returns when the work has advanced far enough to make an impression on the public.

Every amateur can help in this work, for there is no one with a camera who has not access to some place of historical interest.

The article on the English association is illustrated with pictures of ancient customs which survive here and there, but which are rapidly being abandoned and forgotten. One of the pictures shows ancient chain armor preserved in the city of Lichfield and used each year in an annual ceremony called the "Court of Array." The armor is worn by boys, because the average man cannot get into it, owing to the increase in size between the present generation and the men of three or four centuries ago. While we have few of the curious customs which are found in England, pictures of these few should be made and preserved; for America grows so much faster and destroys the old to make way for the new with such vandalism that soon not even a vestige will be left of what, by taking action now, may be kept in pictorial if not in actual form.

One wishes one's words could be so forceful as to inspire our members to work with a will and to interest others in what is sure to be one of our greatest helps in the preserving of past history.

The best preparation for good work to-morrow is to do good work to-day; so let us begin to-day, knowing that the good work in the future will take care of itself if we only work in the present.

#### OLD TRADES AND OCCUPATIONS

Old-time trades would be a fruitful subject for the amateur, though, like many of the ancient English customs, they survive only in remote localities far from railroads or well-traveled roads. The amateur, however, visits these remote localities, and when he does so he should look out for a subject of this kind and make photographic studies of the same to be included in the pictorial collection of bygone industries. There are very few of the old wooden looms used by our foremothers in weaving carpets, woolen sheets, and blankets, or the smaller looms on which were woven the finer linens. These old looms were ponderous things, and it required the strength of two men to set them up when they were needed for use. They were made of heavy beams of the hardest kind of wood, and when set up were as large as the little bed-rooms in which our ancestors used to stow themselves at night. Now and then, though not often, one comes across one of these looms in actual use, and it is the wise amateur who avails himself of the opportunity of making pictures of the weaver at the loom.

This is one of the old-time trades or occupations which is rapidly dying out, owing to the quicker methods of machinery.

The itinerant cobbler who used to go from house to house making and mending the shoes of the family, — once a familiar and welcome visitor, — is now rarely to be met with, as is also the tailoress who used to make over the clothes of the older for those of the younger generation.

Apple-paring and husking bees, raisings, and all those neighborhood customs where each turned in and helped the other, are already things of the past, and only remembered by the older generation. Happy is the amateur whose photographic ways may lead him where he can picture a survival of one of these enjoyable gatherings.

If any member of our Guild finds a chance to make a picture of any of the subjects suggested, let him make the very best negatives possible with the thought that they will be an addition to one section of the historic picture collection.

#### GENRE PICTURES

Pictures of the subjects just suggested make the most charming genre pictures. Do you like to study the evolution of words and phrases? "Genre" is a word which was formerly used in combination with some other word

to describe a certain kind of picture. Thus, "genre historique" meant a historic picture, "genre du paysage," a landscape picture, etc.; but the word has now become by adaptation an American word, defined as "those pictures wherein are depicted idyls of the fireside, the roadside, and the farm,—pictures of 'real life.'"

The great charm of a genre picture is the unconsciousness of the subject, in that he betrays no suspicion that he is being made the target of the lens. The skilful brush artist can accomplish this happy result, but the amateur finds it rather a difficult matter to beguile his sitter into forgetting self, for there is something about a camera that causes a person placed before it to gaze directly into the lens as if he saw therein a picture such as one imagines he sees when he looks intently into a clear crystal ball. It is only on very rare occasions that the subject of a genre picture should look directly at the camera. Instead he should be attending strictly to the occupation or amusement that he has in hand, and one way for the amateur to secure this happy pose is to state that he is not making a portrait of the person, but simply a picture of what he is doing.

For a good study of unconsciousness take Murillo's "Fruit Venders," or Millet's "The Sower." "The Sower" is a wonderful piece of work. It conveys at once the sense of motion, of freedom, of life. It is a picture of which it would be wise to buy a photograph and pin it where it can often be seen. A frequent sight of such a picture is a fine lesson in composition, especially in the making of genre subjects.

When making genre pictures the amateur should pay attention to the material of which the clothing is made. Stiffly starched white garments reflect light instead of absorbing it, and in the picture show little if any detail. Unstarched muslins, light woollens, and *écru* cheese-cloth will fall in graceful folds and give subdued high lights and soft shadows. Black silk and broadcloth appear dull and flat, but black or dark-toned velvets give good values in the lights and shadows. Plaids should always be avoided on account of the conflicting lines. Attention should also be given to the head covering. A man with a stiff derby hat and a woman with a sailor hat should never be included in a genre picture; for while such hats look well enough on the wearer, they are ugly in a picture, owing to their stiffness. A soft hat with graceful curves, even a half-worn felt hat, is much to be preferred.

There are so many picturesque characters that make fine subjects for the camera that the amateur would do well to make a specialty of seeking them out and photographing them. The cobbler at his bench, the blacksmith at his forge, the farmer at his plow, the fisherman mending nets, all make charming pictures, if the amateur will strive to attain with his lens what the painter attains with his brush,—the unconscious pose.

The trend of photography is in this direction, and happy is he who shoulders his camera and follows after. His pictures are sure to be worth-while pictures.

#### PHOTOGRAPHY FOR PROFIT

The pursuit of amateur photography is, as a rule, a state of continual outgo and no income. Unless one has an unusually deep purse this constant taking out and putting nothing in comes in time to the bottom, and one must either give up his favorite avocation, or else devise some means of making his camera earn its keep. This latter plan is not so difficult as one may imagine, especially in this day of pictures when even our "ads" are passed by if they have not some catchy illustration to arrest the eye.

There are more roads to Italy than the one across the Alps, and there are more ways than one to use the camera as a financial aid. A young woman who, like the clan of the amateur photographers, loved an out-door life, was wandering one day in the woods when she came across some very interesting and rare specimens of mushrooms. She had a friend who made a specialty of the study of mycology, and she longed to send her the beautiful specimens she had found; but unfortunately the friend lived in Minnesota, and she lived in New York, and mushrooms object to transportation. She had her camera with her, and it occurred to her that she might photograph her "find" and send the pictures, which would be the next best thing to the mushrooms themselves.

The mushrooms were transferred from the ground to a stump near by, enough grasses and mosses growing near being taken with them so as to preserve the effect of still being on their "native heath." The photographs turned out to be everything that could be desired in the portrait of a mushroom, and her friend wrote that if she could find and would make photographs of rare species of mushrooms, she could find for them a ready sale. So our amateur began the pursuit of rare and curious specimens of fungi. She has had the good fortune to dispose of many of her prints to colleges and societies, Harvard having a number in its natural history collection.

Our amateur was clever enough to seize her opportunity, and there are plenty of such opportunities, for as Van Dyke says, "Opportunities are swarming around us all the time thicker than gnats at sundown."

#### JUNE ROSES

"June Roses" is the appropriate subject given our Guild members for the June competition, and we are expecting some fine studies of this queen of flowers. In photographing flowers do not use a flat light. Even if one makes his studies out-of-doors there are ways of avoiding the direct full light which makes it next to impossible to obtain soft shadows and subdued high lights which give roundness to the pictured blossom. In selecting the kind of rose for photographing do not forget that the wild single roses and the sweet-briar rose are very artistic studies.

It is not advisable when making flower studies to use too sharp a focus. It seems to destroy the individuality

of the flower where one can detect every thread of veining in leaves and blossoms. This is specially so with the rose. Photograph a rose as you look at it. You contemplate its beauty as a whole and do not note the details which appeal to the botanist. If one is making flower studies for the use of a botanist, then the focus must be very sharp; but for a picture, follow the methods of the painter. In so doing one's flower photographs often suggest color though the tone is a monochrome.

#### A ROYAL PRIZE

A camera has become a necessary adjunct to the traveler's outfit, and supersedes the once ubiquitous notebook.

While a camera is admitted to be one of the things one cannot do without on a journey, taken for pleasure, it has remained for the PHOTO ERA to organize a foreign tour especially for the benefit of the amateur photographer, giving him not only an unusual opportunity to make a valuable collection of pictures, and to make them under the supervision of an experienced photographer, but also making it possible for him to take this trip free of all expense, providing the pictures which he makes are the best submitted by any member of the party. This tour—which a glance at the itinerary shows to be one of the most interesting possible—is the greatest and most generous prize yet placed in reach of the amateur.

If you have not yet seen the itinerary, it will be mailed you from this office on receipt of name and address.

If you are contemplating a trip abroad in the near future, it will be to your interest to avail yourself of this unusual privilege of seeing foreign countries under the most favorable auspices.

#### HOME PORTRAITURE

The Eastman Kodak Company has just published a little book which will be of great assistance to amateurs who wish to take portraits at home, and be more sure of the exposure than has been the case in the past. The book is entitled "Home Portraiture," and is written by Frank Morris Steadman. Mr. Steadman is a professional photographer, who spends his time in going from house to house taking portraits. He has recently been working in Yucatan, and has received from \$25 to \$100 a dozen for prints from kodak negatives. Naturally, in working in continually varying lights, he found it necessary to have some means for measuring actinic values. Discarding the principle of the old, slow-working actinometer, which requires much time for the darkening of sensitive paper to a standard tint, he evolved a method, depending on the formation of the slightest visible tint on solio paper. The time necessary for this to occur is naturally much shorter, and the method is correspondingly more useful. The use of this method will make exposures in unfamiliar rooms as

simple as in broad daylight. For this reason alone we would strongly recommend the book to our readers.

This is not the whole contents of the book, however. It also contains a number of diagrams, which show exactly how to place camera, subject, and screens, to secure different lightings from an ordinary window, and gives valuable suggestions as to posing. The book is published in board covers, at 25 cents, and in full red leather, with brass exposure block, at 75 cents. Orders may be sent to the PHOTO ERA, or the book may be purchased from any Kodak dealer.

#### ANSWERS TO CORRESPONDENTS

Harry L. Supp.—The salts are large, colorless crystals, soluble in water, and may be bought at any large dealer in photographic supplies. You probably would not find them in stores where only a limited supply of materials, and those the most commonly used, are sold, as is the case in department stores. The quantity needed would not cost more than ten or fifteen cents. Membership cards have been sent to you, and we should be glad to also enroll your name in the Historic Guild membership.

G. H. Brickett, M. D.—There is no fee for membership in either the Round Robin or the Historic Picture Guild. Would you not like to also join the Historic Picture Guild? Circulars will be sent you if you desire, or if you will refer to the July number of the PHOTO ERA for 1903 you will find a detailed account of the work. A Round Robin Guild membership has been sent to you.

Katharine S. Nicholson.—If one sends a good print for reproduction, it is not necessary to send the negative. Publishers prefer the glossy prints to the matt finish. You will find detailed directions for photographing flowers in the March, 1904, PHOTO ERA, together with some fine examples of flower photography.

C. H. Gorton.—A salting bath for photographic paper may be made as follows: Chloride of ammonia, 60 grains; gelatine, 20 grains; water, 20 oz. Float the paper on this bath for two or three minutes and pin up to dry.

Marion H.—The article on Photo-Ceramics may be found in the March number of the PHOTO ERA, 1903, Round Robin Guild department.

Alice M. Smith.—A membership card and Guild circulars have been sent you. New circulars will shortly be issued for both the Guilds, and these will also be sent as soon as ready for mailing.

B. L. Ford.—To tint the white background of a vignetted photograph, flash the print in the sun three or four times until the white is sufficiently colored. If a deeper tint is desired, cover the print with a piece of thin tissue paper to prevent its discoloring and expose longer to the light.



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## Notes and News

**DIE KUNST IN DER PHOTOGRAPHIE.** Herausgegeben von Franz Goerke. Halle a. S., Wilhelm Knapp.

This beautiful periodical has now begun its eighth year, and fills a place in the literature of photography distinctly its own. It appears four times a year, and each part consists of seventeen or eighteen pictures, with a page or two of text. Five of the illustrations of each number are in heliogravure of imposing size and perfection of execution, such as only Meisenbach, Riffarth & Co. are capable of. The illustrations in the part at hand are by well-known photographers of England, France, Germany, Russia, Sweden, and Belgium, besides H. P. Baily, H. A. Hess, and W. B. Post, of the United States.

This periodical worthily represents the work of the best photographers of all countries, and is the most serious attempt to make a collection of photographic art which is published in Europe. Single parts cost \$2, and the yearly subscription is \$6.25, to which postage must be added for foreign countries.

**L'EPREUVE PHOTOGRAPHIQUE.** Portfolio mensuel de grand luxe; format 44 x 32. — Impressions en taille-douce de Ch. WITTMANN. — Montage artistique des planches sur papiers feutres. — Couverture en quatre couleurs, caracteres et dessins de preface composés par George AURIOL.

ABONNEMENT ANNUEL : Paris, 20 fr.; départements, 23 fr.; Union postale, 28 fr.

Plon-Nourrit et Cie, éditeurs, 8, rue Garancière, Paris.

This new periodical starts out in the magnificent size of 17 1-2 by 12 1-2 inches, and presents for each monthly number four photogravure plates mounted on harmonizing cover papers, somewhat after the model of the PHOTO ERA, Edition de Luxe. The pictures are to be chosen from the best of all countries. The first number represents France and England, the most striking picture being a magnificent red chalk photogravure of a beautiful nude study, by Rene le Begue. Single numbers may be ordered through the PHOTO ERA, at 60 cents, or annual subscriptions, at \$6.

**THE MYSTERY OF MIRIAM.** By J. Wesley Johnston, Boston. (Herbert B. Turner and Co. Price, \$1.50.)

This is a novel of the sort that is well suited for relaxation from a day of care and toil, a book to be taken up in the evening and plunged into for forgetfulness. With the first chapter the reader leaves himself and his own affairs behind, and embarks on the voyage of others' lives. It is a thrilling and enthralling trip, and will hold attention until the book is finished. The plot of the story is unusual and interesting; the author gives us a series of happenings which would be less astonishing in life than in fiction, but which make a very entertaining story. What the mystery is, we will leave the

reader to discover. It will give him food for thought and discussion.

**ROCHESTER, N. Y.** We call the attention of our readers to the new advertisement of the Rochester Lens Co., in this issue. The Royal Anastigmat, — "The Yankee Lens," as its makers proudly call it, — is one of the triumphs of American industry. "If you must have speed, — then use a Royal." It is especially adapted for fast work, and nothing that moves is beyond its grasp. The makers fit it to any make of camera or shutter on the market. Drop them a postal card, and tell them that you saw it in the PHOTO ERA, and you will get a catalogue which will convert you to American lenses.

**ROCHESTER, N. Y.** The Rochester Optical Company announce that, owing to the repeated demands for film packs and adapters for cameras larger than those which it has previously been practical to fit, they have undertaken experiments which have resulted in the production of an adapter for 5 x 7 cameras. Thus these larger outfits are converted into daylight-loading cameras, which can be focused on the ground glass just as when plates are used. Orders may be placed with photographic dealers, to be delivered about the middle of June. The demand is likely to be so great that we advise our interested readers to place their orders at once.

**TROY, N. Y.** The Troy Camera Club is a very flourishing institution which now numbers eighty members.

The society has just finished extensive improvements in its dark-room facilities, and now enjoys an equipment which is second to none in convenience and efficiency.

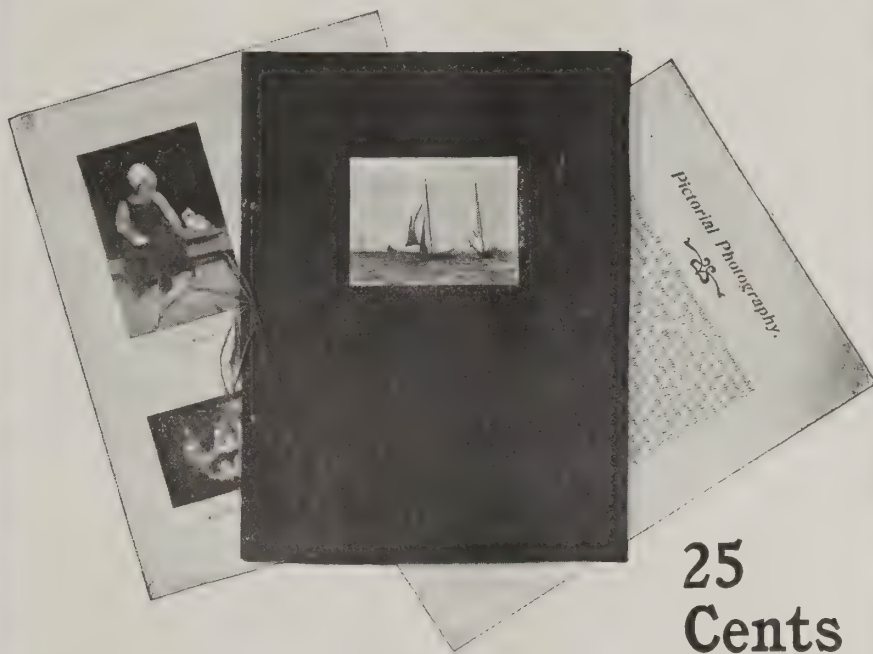
**BROOKLYN, N. Y.** The Department of Photography of the Brooklyn Institute of Arts and Sciences opened its fourteenth annual exhibition with a private view and reception at the art rooms, 174 Montague street, on the evening of April 23. The collection of pictures was excellent, as usual.

The annual exhibition of the Brooklyn Academy of Photography was opened with a private view of the accepted prints and lantern slides on May 4, and continued on view until the 7th of the month at 177 Montague street. A fine collection was shown.

**BOSTON, MASS.** The annual exhibition of the Boston Camera Club was opened May 4, with a lecture by Mr. F. Holland Day, on the artistic standing of photography. The exhibition well covered the walls of the new exhibition room, and was of very even and uniformly high quality. Mr. Day entertained the club at his studio on the afternoon of May 10, and had on display his personal collection of prints by the best workers of the world.

Souvenir Portfolio

# 60 Prize Pictures



25  
Cents

This Portfolio, of which the above illustration shows the outside front cover, one of the pictorial pages, and one of the type pages, contains reproductions of the sixty prize winning photographs in our recent three thousand dollar Competition. These pictures are reproduced in the highest style of the printer's art, and in the natural colors of the photographs themselves, as submitted in our Competition. They represent the most interesting work of the leading photographers of the day, among whom may be mentioned Alfred Stieglitz, Edouard J. Steichen, Mrs. Myra Albert Wiggins, Mrs. Nancy Ford Cones, Mrs. Pocahontas Jacquemin, Miss Nellie Coutant, Mrs. W. W. Pearce, Harry Coutant, Arthur Hewitt, Curtis Bell, Walter Zimmerman, Laura Adams Armer, Thomas A. Morgan, H. G. Ponting, N. Brock, Theodore Eitel, R. S. Kaufman, J. H. Field, Fred Seckel, John H. Blackwood, William E. Blossfeld, etc., etc., etc.

There are twelve articles by twelve of the leading photographers, among which may be mentioned, "Concerning Portraiture," by Edouard J. Steichen; "Pictorial Photography," by C. Yarnall Abbott; "Genre Photography," Myra A. Wiggins; "The Photo Secession," Alfred Stieglitz; "The Photographic Salon," William F. James; "Instantaneous Photography," Joseph N. Pearce; "Interior Photography," Curtis Bell; "Modern Telephotography," Frank S. Dobbins; "Hand Camera Photography," Nellie Coutant; "The Shutter in Photography," Louis Fleckenstein; "Rayfilter Photography," William E. Blossfeld.

The Souvenir measures 9 x 12 inches and there are 64 pages on heavy plate paper. The book is bound in art bristol with silk cord, with a real photographic print mounted on the front cover.

Send 25c., stamps or money order preferably, as coin is likely to work out of the envelope.

Over 10,000 sold in 30 days.

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BOSTON

## Notes and News

BOSTON, The "Youth's Companion" announces its MASS. ninth annual contest for 1904, which will be conducted on the same general plan as the contests of previous years. Only amateurs may compete. Those who take an occasional photograph for a friend and accept pay are not ineligible, but those who depend on photography for a livelihood are classed as "professionals," and cannot enter. Following are the awards offered:—

The grand award of \$100 will be given for the best set of photographs—not less than five in number—in which the human figure is the chief point of interest. Six graded awards of \$70, \$60, \$50, \$40, \$30, and \$20, aggregating \$270, will be given for the six sets (of five or more pictures) next in order of merit to the set receiving the grand award.

In addition, honorable mention certificates will be given to the twenty sets of photographs next in merit to those receiving awards. Each certificate will be numbered, and the number will indicate the degree of merit of the photographs winning it.

There are also offered three special awards, called the home, village, and roadway awards. These will be given for sets or single photographs, as follows:—

Award A, \$20. For the most attractive and original approach to a house, showing arrangement of shrubbery, walks, flower beds, vines, etc. Award B, \$20. For the most attractive village green, public square, with or without buildings, such as churches, library, halls, etc., showing the arrangement of trees, shrubbery, walks, fountains, or any other ornamental features. Award C, \$20. For the most attractive roadway, showing arrangement of trees, shrubbery, walks, etc., either natural or improved.

The competition will close at noon, Oct. 31, 1904. This will allow those who have been absent from home during the summer ample time in which to prepare their exhibits.

Full details and conditions may be had by addressing Photographic Department, the "Youth's Companion," Boston, Mass.

NEW YORK The Metropolitan Camera Club of New CITY York is the only photographic organization in the world having a studio equipped with the new Cooper-Hewitt electric light for portraiture. Full exposure is obtained in one-fifth second with portrait lens; and exquisitely soft effects, with perfect blending of tones, are secured. The results are superior to work by any form of daylight, and the advantage of making portraits at night, under the most favorable conditions, is of vital importance to members of a camera club.

NEW YORK The Burr McIntosh Monthly announces a CITY \$200 prize in a contest of art and beauty.

The above prize will be given to the sender of what shall be judged by a distinguished jury of award to be the most beautiful photograph of a woman. All photographs must be received on or before Aug. 1, 1904. For the best outdoor photographs made by amateurs, received at their office during each month, they will forward prizes of \$15, \$10, and \$5. Other prizes are also offered. Full details will be found in our advertising pages.

NEW YORK Milton Waide, the originator of the "One CITY Man Method," sends in the following directions as to how to prevent artificial light


developing paper prints from curling: "Lay out blotters. On these place muslin from which starch is washed out, and keep the muslin for just this purpose. Take prints from the wash water and lay face down on the muslin. When prints are just dry enough so that films will not adhere, and yet while quite damp, they are rolled film out around a roller one and one half to two inches in diameter; then a small rubber band is placed around each end and the roller removed, leaving the prints rolled in circular form. All are prepared in this manner. It takes less time to do than to tell, and they are allowed to become stone dry while in this shape, thus allowing the pores of the gelatin film to stretch. The rubber bands are then removed, and if necessary three or four prints at a time are rolled the other way around the roller to make them lay flat. Having been stretched while drying, they will not curl again. I find it advisable when heavy paper with smooth surface is used, to, before placing on the roller, curl the ends of the print backward with a ruler, to prevent the sharp edge marking across the face of the print during the drying process."

MARSEILLES, The Photographic Society of Marseilles FRANCE is organizing its Third International Salon, which will be held in January and February, 1905. This is, aside from the Salon of the Photo-Club of Paris, the most important exhibition held in France, and is always an excellent exhibition, comprising the best work of photographers from all countries. Information may be had from M. Edouard Astier, 11, Rue de La Grande Armée, Marseilles, France.

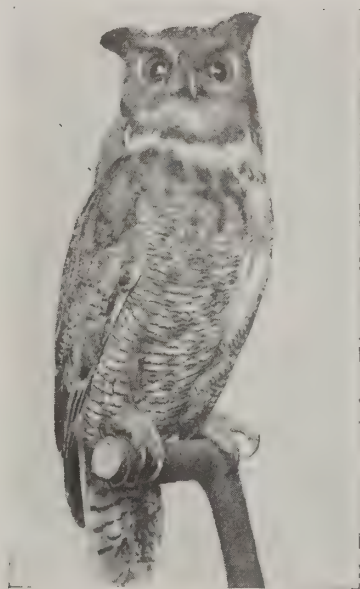
NEW YORK The Scientific Lens Company, manufac- CITY turers of the Ocular Lens and the Coursen Shutter, have taken a down-town office at 24 East 21st street, where they will be glad to receive their friends and explain the advantages of their apparatus.

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# THIRD ANNUAL CONTEST OF THE PHOTO ERA FOR 1904

The PHOTO ERA cordially invites all photographers to enter pictures in its Third Annual Contest. We have made considerable changes in the conditions this year, diminishing the number of classes, and increasing both the number and the value of the prizes, and we hope for a large increase in the number of pictures submitted.

The pictures will be divided by the judges into two classes, one in which human life is the principal interest, including portraits, genre studies, etc., and another in which human life is absent or subordinate, including landscape, architectural, marine, and still-life pictures, etc.

## Photo Era Annual Contest for 1904

Exhibitor .....

Address .....

Title of Picture .....

Time of day ..... Light ..... Lens .....

Focal Length ..... Stop ..... Exposure .....

Plate ..... Developer .....

Paper and Printing Process .....

### AWARDS

IN EACH CLASS PRIZES WILL BE AWARDED AS FOLLOWS:

RANK	VALUE	NATURE	RANK	VALUE	NATURE
1st	\$25.00	Cash	5th	\$2.50	Subscription to <b>The Practical Photographer</b>
2nd	10.00	Subscription to <b>Photo Era</b> Edition de Luxe	6th	1.00	Choice of one copy Edition de Luxe, or one dollar's worth of mounts, or one port- folio Masterpieces in Art, or four copies <b>The Practical Photographer</b> .
3rd	5.00	Subscription to <b>Photo Era</b> and <b>The Practical Photog- rapher</b>	7th		
			8th		
			9th		
4th	2.50	Subscription to <b>Photo Era</b>	10th		

If further pictures are deemed worthy of award, they will be given Honorable Mention, and a fifty-cent portfolio of Artist Mounts will be sent to the maker of each.

### THE GRAND PRIZE

Will be awarded to the maker of the best set of photographs submitted. This will consist of a **Silver Loving-cup**, beautifully wrought and lined with gold, valued at \$50.00, to become the property of any contestant who wins the grand prize award two years in succession.

### CONDITIONS

Each competitor may submit as many pictures as desired.  
Each picture submitted **MUST** have the coupon printed above attached to the back. Additional copies of this form may be had by addressing the PHOTO ERA, 170 SUMMER ST., BOSTON, MASS., and enclosing a 2-cent stamp.  
Pictures will be returned **ONLY** if return postage is enclosed and request made **AT TIME OF ENTRY**. Otherwise we are not able to find individual pictures in the great number entered.  
The PHOTO ERA will keep all pictures awarded prizes, or honorable mentions, and shall have the right to reproduce any picture submitted. The entry of pictures will be considered as agreement to these conditions.  
All prints entered must reach this office on or before November 1, 1904.

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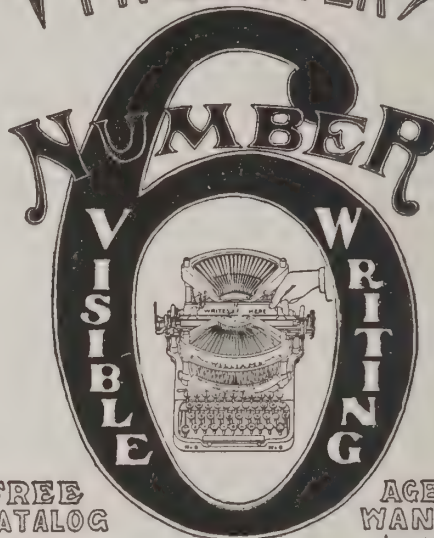
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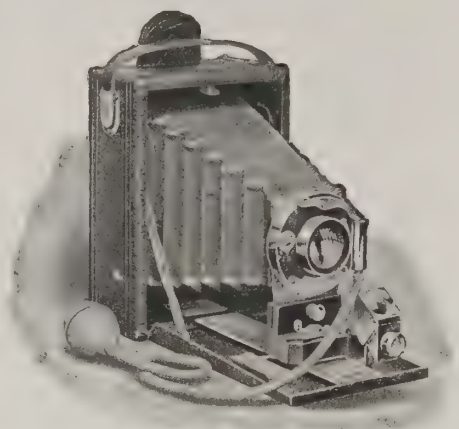
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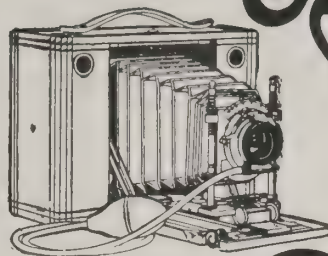
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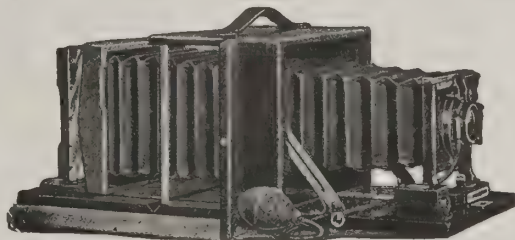
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ROCHESTER, N. Y.

## MEZZO-TONE.

A GELATINE SELF-TONING PAPER  
WITH A SEMI-MAT SURFACE.  
DELIGHTFULLY SIMPLE.

Among the best of the new good things in photography is Mezzo-Tone paper.

It is printed like Solio, cleared in common salt and water, rinsed, fixed and washed. The resulting tones are a warm, rich brown, which, in connection with the semi-mat surface give an entirely new effect in photographic papers. There is a novelty in tone and finish which will attract to Mezzo-Tone those who may have tired of the papers they have been using. It has the advantage of novelty as well as simplicity.

While strictly a self-toning paper when used as above, Mezzo-Tone may be given a colder tone by the use of a very simple sulpho-cyanide bath. An experience with sulpho-cyanide in connection with this paper, extending over a period of more than a year, has shown that it produces satisfactory and permanent prints.

Solio has always been a paper that was favorite with the amateur because with it he could easily secure satisfactory results. In the rare cases where he had trouble it was almost invariably traceable to his overworking his toning bath or to his use of an inferior toner put out by irresponsible manufacturers of photographic solutions.

Mezzo-Tone does away with the chance of his making either of these mistakes. It requires no toning solution. The toning chemicals are in the emulsion itself and are released for action when the print is immersed in salt and water. With every print put into the salt water one automatically, so to speak, puts in at the same time the requisite chemicals for toning

that print. The percentage of failures should, therefore, be exceedingly small.

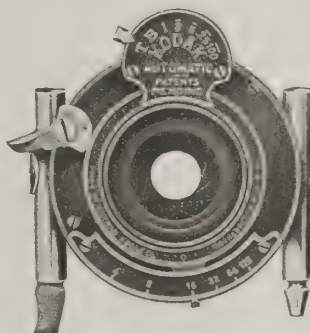
## THE PRICE.

The price of Mezzo-Tone paper will be the same as that of Aristo Platino, but the small sizes instead of being put up two dozen to a package will be one dozen to a package. We give below the list prices on a few of the most popular sizes.

2¼ x 2¼, per doz.,	-	-	-	-	\$ .15
2¼ x 3¼, " "	-	-	-	-	.15
2½ x 4¼, " "	-	-	-	-	.15
3½ x 3½, " "	-	-	-	-	.15
3¼ x 4¼, " "	-	-	-	-	.15
3¼ x 5½, " "	-	-	-	-	.20
4 x 5, " "	-	-	-	-	.20
5 x 7, " "	-	-	-	-	.35

Cabinets (3¾ x 5½) list at 20 cents per dozen, \$1.10 per ½ gross, \$2.00 per gross.

All dealers.



## THE KODAK AUTOMATIC SHUTTER

now fitted without extra charge on the Nos. 3 and 4 Cartridge Kodaks is one of the many new good things we tell about in the 1904 Kodak Catalogue. Ask your dealer, or write us.

# Eastman Kodak Company

ROCHESTER, N. Y.

## "HOME PORTRAITURE."

A NEW AND SIMPLE TREATMENT OF THIS INTERESTING SUBJECT BY FRANK MORRIS STEADMAN.

The author of this little book tells how to make home portraits in such a simple and easy manner that anyone ought to succeed.

Mr. Steadman is a professional photographer who has been operating under amateur conditions. For several years his work has been done in Mexico and Yucatan and his specialty has been the making of home portraits, for which, by the way he gets from \$25.00 to \$100.00 per dozen.

He uses a Kodak invariably; sticks to film and the developing machine. No ground glass, no skylight and no dark-room find a place in his photography. Unlike the professional who works in a gallery his conditions of light change with every new batch of negatives and so he has formulated a system for measuring the actinic strength of light by means of tinting a piece of Solio paper—not the slow method in use with actinometers which require printing until a certain shade of paint is matched, but a quick method based on the appearance of the first "visible tint." From this principle he makes a few simple rules for measuring light and timing exposures that are certain to be of great benefit to the amateur.

His little book does not stop at this point, however, but by means of a number of diagrams shows how to procure different lightings by means of an ordinary window and contains helpful suggestions on posing as well.

We have published Mr. Steadman's book because we believe it will be of wide benefit to the amateur, will help him wonderfully in that branch of photography in which he needs the most help and is most anxious to excel—portraiture.

"Home Portraiture" may be purchased of any Kodak dealer or will be mailed, postpaid, upon receipt of price.

### THE PRICE.

"Home Portraiture," card covers punched with round hole for tinting Solio, - - - \$ .25  
Do., genuine leather cover, title in gold, with brass tint block, - - .75

### WORTH \$25.00.

PHOTOGRAPHIC FINGERS WERE THUMBS BEFORE HE TOOK THE KODAK CORRESPONDENCE SCHOOL COURSE.

We get very many appreciative letters from pupils in the K. C. S. P. Here is one of the best of them:

As to my experience with your K. C. S. P., beg to say that I feel that the instruction and information I have received thereby are worth at least twenty-five dollars to put it at the very lowest. No amateur can well realize the advantage of assistance, who has not become a student under this instruction. There are hundreds of little collateral or side mistakes that are made by the novice, even though he may think he is following directions faithfully. These often stump him and he feels that his Kodak efforts are a failure, when, in fact, just a little advice of the right kind will set him right and he will be astonished to see how easy it is to make pictures. I have no trouble at all now. At first my fingers were all thumbs; I was constantly making little mistakes which prevented success and which I did not know then how to correct, or rather, avoid. Amateurs who do not avail themselves of your free instruction—that is, it is the same as free at only \$1.00 and the text books thrown in—simply do not know what they are missing. They are simply missing the unrevealed pleasures of intelligent amateur photography.

The school is doing good work; is helping thousands of interested amateurs to do better work. It helps the novice over his difficulties but it doesn't stop there—is not a mere photographic kindergarten. There are few amateurs whom it cannot benefit.

**Eastman Kodak Company**

ROCHESTER, N. Y.

With your glass plate camera  
you can enjoy many of the  
advantages of film if you use

# KODOID PLATES

NON-HALATION. NON-BREAKABLE.

ORTHOCHROMATIC.

LESS WEIGHT. BETTER QUALITY.

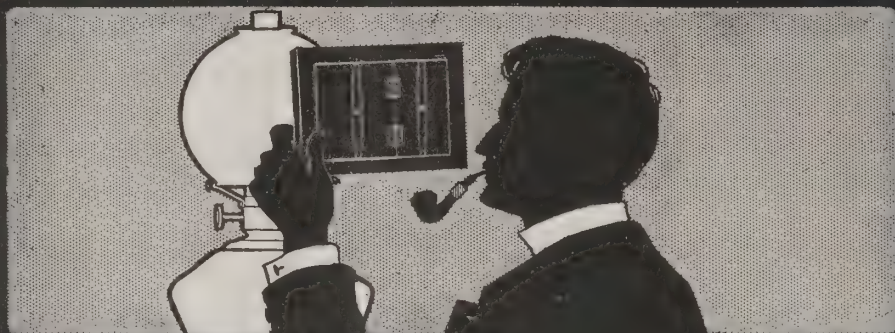
No Kits or extras required—they will fit  
your plate holders.

3¼ x 4¼,	=	=	=	=	\$ .45
4 x 5,	=	=	=	=	.65
5 x 7,	=	=	=	=	1.10

*All Dealers.*

EASTMAN KODAK CO.

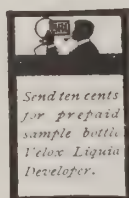
Rochester, N. Y.



# VELVET VELOX

A new Velox paper with a semi-gloss surface that adds lustre and life to the shadows. Its breadth of gradation adapts it to use with almost any negative.

**Furnished in single or double weight and as Post Cards.**



**ALL DEALERS.**

**Nepera Division,  
EASTMAN KODAK CO.,**

**Rochester, N. Y.**











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